California GARDEN

AUGUST - SEPTEMBER 1970

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Floral Association General Meetings on third Tuesdays.

September 15, 1:30 p.m. Helen M. Herney will present "San Diego's Legacy of Trees; An Appreciation of Their History, Use and Beauty." (Tea at 1:00 p.m.)
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August 23 (Sunday) San Diego Rose Society.
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Monday morning Flower Arrangement classes by Mrs. Kirkpatrick, traditional and modern Western, and by Sumiko Lahey, Sogetsu style ikebana, will begin in September.
Chairman of Instruction: Mrs. R. Hoyt (296-2757)

CALIFORNIA GARDEN

Southern California's Own Garden Magazine

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THE COVER

The geranium on the front cover was done in india ink by Shirley A. Belser, a third year student at San Diego State majoring in Commercial Art.

The list on the back cover was compiled by Walter F. Whitman, M.A., Chairman of the Department of Biological Sciences of Grossmont College and an instructor at University of California Extension.

CONTENTS

Editorial — Think Green 4
What is Ecology 4
About Florida Canyon 4
Dahlias by *Larry Sisk* 5
The Story of a Hose by *Josephine Gray* 6
Growing the Golden Protea by *Carlton Gardner* 7
Desert Landscaping by *Jim Stalsonburg* 8
A Primer for Name Callers by *Helen Witham* 10
Tijuana Tidbits by *Rosalie Garcia* 12
Balboa Park Trees by *Ernest Chew* 14
Gardening with Worms by *John E. Miller* 14
One Day Tour of Kyoto, Japan by *Barbara Jones* 17
Language of Rocks 2 by *Barbara Jones* 18
Midsummer Gossip about Herbs by *Josephine Gray* 19
Book Review 25
Driftwood by *Ann Bowen* 27
Tips on Preparing Dried Plant Material by *Virginia M. Innis* 27
Ikebana by *Rikyu* 28
Let's Go Down to the Seashore by *Helen Witham* 30
Help Save the Earth by *Walter F. Whitman* 32

Calendar of Care

Pruning Shrubs, Trees and Vines by *George James* 20
Dahlia Diggins by *Larry Sisk* 22
Cactus — Easter Cactus by *L. N. Phelps, Ph.D.* 22
Succulents-Dudleya attenuata by *Nibby Klinefelter* 23
Orchids by *Duane "Bud" Close* 24
Fuchsias by *James Watson* 24
Iris by *Stanford Roberts* 25
Roses—fertilizer by *George James* 26
Camellias—fertilizer by *George James* 26

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THINK GREEN

Green is beautiful! Green is healthy! Green smells good! Think green—plants not paint and dye!

A healthy city is a green city. If you see it from the air, it looks green and pleasant and inviting. (Acres of concrete and asphalt and steel only look good to the people making money because of it—greed above all else.) When a city becomes unhealthy for body and mind, the green disappears.

When a homeowner becomes lazy, he cements or gravels in his yard. When he becomes more slovenly, he dumps his trash and filth in the yard, too. He says I just can't keep up with that yard work. (Ha! Ever hear of low maintenance gardening and trash cans.) All of this shows mental pollution. In most cases an unhealthy environment is the direct result of mental pollution.

A city where clean air and healthful living are not important and the city resources are devoted to play, party and 'greed' (with the excuse that all these things bring more revenue and growth) is sick. When people build blank walls and install air conditioning, we can only think—what has upset their thinking so they must hide? An open window and fresh air are the real desires of healthy people. Fortunes are spent on rentals or on purchasing a dwelling with a view of a park or the ocean or with some "ground."

Plants are the "green." They help to purify the air as they use carbon dioxide and release oxygen in their food manufacturing process. **Plants help fight air pollution.** They are sound buffers and tests have shown that a hedge or tree barrier can cut out up to 80% of the area noise. **Plants help fight sound pollution.** They retain moisture and help influence climate. When one is surrounded with plants a feeling of aliveness and well being is experienced. **They help fight mental pollution.**

The most important people today in our world are gardeners. We can get to the stars, have wrist T.V. sets, explode bigger bombs, fly bigger planes, cure strange and exotic diseases—but what good is it all in a trash heap. What happens when the World starves, as it will when the plants disappear. Our forefathers knew! In every community and country the greatest respect was accorded to the gardener. All great leaders, businessmen and teachers (and even the counterpart of the "jet-set") prided themselves on their gardens. Look at history and find that only the plant growers survive!

Barbara S. Jones, Editor

WHAT IS ECOLOGY?

ECOLOGY ACCORDING to Eugene Odum is *the study of the structure and function of nature.* Ecologists study *ecosystems,* a functional unit which includes all organisms of a given area and the nonliving environment in that area. Actually the whole world could be considered one big ecosystem, but usually the term is used to describe smaller units which are combined and intertwined to form the whole world. All ecosystems consist of:

—**Abiotic Substances**—basic elements

—**Producers**—autotropic (self-nourishing) organisms that fix light energy and manufacture simple food. Mainly green plants.

—**Macroconsumers**—heterotropic (eat something else) organisms. Mainly animals.

—**Microconsumers** — heterotropic decomposers that are able to release simple substances.

An over-simplified example of an ecosystem is a pond. Green pond grasses grow, very small animals eat the grasses, small fish eat the small animals, big fish eat the small fish, waste material and dead fish fall to the bottom of the pond to be decomposed by bacteria to be utilized by the plants—and around we go again.

If something is done to upset a cycle in an ecosystem, it changes and we will soon notice a difference. As many experts say "We can't afford to upset these cycles because the situation can not often be successfully recreated." In other words—Things aren't good when we upset the balance of nature!—BJ

OUR READERS will be happy to know that a Master Plan is to be developed and adopted before anything is built or planted in the Florida Canyon Area of Balboa Park. (This is the area east of Park Blvd. and the Navy Hospital, south of Upas and north of Pershing Drive.) This area includes the remaining undisturbed chaparral on the eastern slopes and in the finger canyons.

Preservation of this area is particularly important because of its educational and historical and ecological aspects. This small remaining space of publicly owned canyon site in the center of our city contains a remenant of our native vegetation —a type that has evolved over the centuries to meet the conditions peculiar to this environment. IT IS AN IRREPLACABLE TREASURE. It must be kept for study and observation in the present and in the future. Our canyons are disappearing by fill or filling—and this may be the only place left in a few years where city children will ever be able to see wildflowers. I have just learned that Helen Witham, our "Wildflower expert," has proposed a natural or native plant garden for this area. If you feel that this area is important, ecologically and aesthetically, let your elected representative know you do before it is made into another playing field or parking lot or office building. *Barbara Jones, editor.*

Note: The Mayor has appointed the following people to the Park and Recreation Board (Let them know how you feel, too.) Douglas R. Giddings (Chairman), Richard M. Bowen, Richard F. Lustig, Louis E. Robinson, Col. Irving Salomon, O. W. Todd, Jr., Frank L. Asaro, Reggie C. Jensen, Theophilus A. Logan, Mrs. Dorothy Dudley Muth and Mrs. Roberto L. Pollorena.

DAHLIAS

Larry Sisk

DAHLIAS AT PEAK BLOOM now lend themselves ideally for display, both as color in the garden and as attractive cutflowers.

It also is the season for competitive exhibition at the shows throughout California and the rest of the country.

This showy flower will continue to bloom prolifically through September and early October — even beyond for the dahlia hobbyist.

The gardener who is not thoroughly familiar with dahlias should learn that they wilt quickly if kept out of water very long after cutting. Whether they are large or small, dahlias should be placed in water immediately. Then, given adequate attention, they will last as beautiful cutflowers for three or four days or longer.

Late afternoon or dusk is the best time for cutting. To be sure, take a pail of air-temperature water right to each plant. Cut with long stems, remove the lower foliage and place immediately in the water.

If the flowers are large or appear heavy, be careful. Avoid the danger of flower heads drooping and popping off stems. Extra care can be provided with a light stake or cane in the water pail to which the dahlias can be tied loosely.

Whether for use in the home or on the show table, deep emersion of the stems in the air-temperature water and placing them in a draft-free, dark location overnight will give dahlias added freshness.

Dahlia foliage should not be emersed; it turns black in water and causes the water to ferment.

In cutting dahlias, make a slanting cut just above the leaf node closest to the stem. New flowers will grow from that leaf node. The slanting cut helps the stem take up more water in that first emersion.

When ready to arrange the dahlias, a small portion of the stem end should be cut off, this time with a square cut. The square cut will make it easier for the frog needles to take hold—if a frog is being used.

If the dahlias are to go into a vase or container without frog, the square cut is not essential; some exhibitors like to slit the bottom of the stem two or more inches so more water can be absorbed.

In removing the dahlias from the overnight hardening-off process, to cut off the stem or for any other reason, they should not remain out of the water for long. Even then, and at other times when they are out of the water, they should be held upside down so that the water in the stem will not run out. Air bubbles in the stem will hasten wilt.

Dahlias make ideal arrangements for the table, for the office, or for the church, as well as for competitive display. In competitive arranging, a more proper term probably would be artistic design. Here, use of dahlias or other flowers is incidental to the artistic effect desired by the arranger.

Where the emphasis is on the flowers for their beauty and color, maybe you would prefer just to have a bouquet. If so, here are some more suggestions.

Cut dahlia stems generously to obtain the exact stem length wanted for the flower to fit into the over-all arrangement.

The water in the container should cover the pin frog and the ends of all stems.

If it is desired to hide the pin frog, use a geranium leaf, permitting the pins to come through. Dahlia foliage used for the purpose would discolor in the water.

When foliage is desired at the lower

"Art Linkletter"

"Princess Dianne"

part of the arrangement, use dahlia foliage and stems that don't have flowers, keeping the leaves out of the water, of course. Leaves from larger dahlias may be used if the leaf stems are sufficiently long and substantial.

Place the blossom so that they will face the viewer. Keep stems at varying lengths. Try to blend all the flower heads to make one large blossom.

On the show bench, dahlia arrangement is important, whether the entry is a single specimen or a multiple of three blooms or more. The exhibitor calls this type of arranging "staging."

Although the quality of the bloom and over-all entry speaks for itself, proper staging creates the setting for the bloom to do the speaking.

The bloom must meet all of the rules and standards for exhibition—properly disbudded, surplus foliage removed but keeping a minimum of one set of leaves, and proper length of stem so that the stalk is tall enough—but not too short—to put the bloom in proportion to the entire entry.

Almost as important as the dahlia itself is the container. It must be clean, inside and out; tall enough for the tall flower, or small enough for the diminutive bloom, and heavy enough if the entry is a huge dahlia, and the container must be in harmony as to design and color so that it will not detract from the bloom.

The entry itself also must be clean. Dust and grime from the garden must be removed from the leaves and stem. Use cotton or a small soft sponge in water to clean the entry, holding a hand behind the leaf while cleaning the front. If it can be applied without being obvious, a leaf brightener (glycerin or volcks oil) will make the entry stand out.

In cleaning the entry, beware of detergents which might burn the foliage. Soap may leave a defacing residue.

The competitive bloom should look the judge in the face; 45-degree angle is best. Bracing the stem in the container will help maintain the best bloom angle. Any support used must be kept below the top of the container.

Proper facing often can best be achieved if there is a frog on the bottom of the container. The frog is almost essential in entries of three or more blooms.

Blooms should be closely inspected to avoid displacement of petals that might have resulted on the way to the show. Careful caressing with both hands from front to back and back to front will reshape a bloom.

Some exhibitors like to place their entries in cold water, or even stage them over night with the help of ice. Others burn the stems or add sugar, aspirin, vinegar, glycerin, or whatever to the water to add keeping quality.

The cold water will make the foliage brittle and subject to breaking or tearing at the slightest touch. The sugar or other additives won't help the flower (but it might make the exhibitor feel better by thinking so). The dahlia is going to stay fresh just so long and no longer, with or without "help."

As said earlier, the dahlia will speak for itself. Any spur between the top set of leaves and bloom should be left on the stem; the judge will downgrade the entry if there's a scar where the spur grew.

Lone burned or wilted petals may be removed carefully from the bloom without defacing it, but removing too many such damaged petals will spoil the bloom.

In staging multiples, remember to have varying stem lengths. Start with the tallest in the center and graduate downward in graceful proportions. If one bloom is below the quality of the others, try to reduce its emphasis by arranging the foliage around it.

Any helpful touches to make the entry show off better will be appreciated by the judges. Remember, they are dahlia growers and exhibitors, too.

Larry Sisk has been growing and exhibiting Dahlias for 15 years in this area. We are fortunate to have had this knowledgeable hobbyist write for *California Garden* for the past ten years.

The Story of a Hose

Josephine Gray

NOT LONG AGO I left the hose running half the afternoon and all night on the Cornelia rose, and the Man who does his calm best to govern my erratic life, was understandably upset to find a driveway awash when he made his morning rounds. A rose can always be made happy by a good soaking, and this dear old fence rose burst into new and youthful vigor shortly therafter, but the driveway was another matter. I meekly took the blame though the fault was not really mine, but that of the hose.

The hose is man's enemy: it is both hypocritical and treacherous. On the way to turning this one off it developed a kink up the line which cut off the flow, so I threw it down at the edge of the rose intending to follow it up to the kink, but my attention was arrested by a sturdy little thyme seedling growing in the middle of the hard path. In the business of finding it better accommodations, I forgot the hose and sometime during the night the traitorous thing undid itself and deluged my immediate world.

Now a hose was originally conceived to be a comfort and a use to people who do not have rain in summer. It will pretend to be your friend while all the time taking an eldritch glee in foiling and harrassing you at every turn. If you are toiling up a slope with two hundred feet of it in your wake, it suddenly stops following and you discover some "miles" back that it has looped itself around a twiggy bit of weed. It gleams up at you with a "don't-take-me-for-granted" air, and when, with quiet fury, you kick it, there transpires the fact that you have hit a vulnerable spot and it springs a leak.

There is nothing that a hose would rather do than to break down an iris stalk about to bloom or flatten half a bed of newly set out hyssop. You can have snubbers at the lead-in of every path and the hose will jump them and create havoc in its bid for your constant attention. I have berated, kicked, reasoned with, and have even tried loving my string of hoses, but I tell you that a hose will always go its own selfish slyly malicious way. You are its slave!

If you want to water a hanging basket without the danger of "drip," use an ice cube. SD

Growing the Golden Protea

Carlton Gardner

Unfolded stamens in center are a metalic copperware color.

DYRANDRA FORMOSA—I like to call it the Golden Protea—are members of the extensive Southern Hemisphere family of *Proteaceae*. It is a very old family which is felt to have existed continuously since the Miocene period. As the *Dryandras* have been rigorously restricted in area, they have changed very little since they evolved on this earth. (*Ed. note: Miocene period about 50 million years ago.*) The *Dryandras* as well as *Banksia preamorsa, quercifolia, solandri* and *brownii* which come from the Sterling Range in the Southwest corner of Western Australia, are among the oldest plants extant.

Each family of *Dryandras* will usually occupy an area which will extend not more than 75 to 100 square miles in area; there are exceptions, of course. For example, *Dryandra formosa* is restricted to a 30-35 inch rainfall area of the Sterling Range and the plains around Albany. Almost the entire species of Dryandra is indigenous to the extreme Southwest corner of Australia from Geraldton on the north to Esperance on the southwest side of Western Australia. They grow no more than 40-50 miles inland from the sea coast.

The *Dryandras* tend to be both gregarious and aloof. These plants have a tendency to grow in thickets, but when the species have occasion to comingle they have not interbred.

Though the foliage of *Dryandras* is usually harsh and prickly, there are some exceptions. The foliage is always novel in appearance. The flowers are of the protea type and many have a beauty difficult to describe.

After germinating the seeds, seedling are planted when they are about six inches tall. From then on the amount of water applied to the plants is restricted to correspond to what they would normally receive in their native climate.

Most *Dryandras* must have exceptional drainage. They cannot stand wet feet. It must be remembered that these plants come from an area roughly corresponding to ours, a winter rainfall area. *Dryandra formosa* comes from an area which has 30 to 35 inches of rain and in the higher reaches of the Sterling Range the plants do get 4 or 5 inches of rain in the summer.

Dryandra frazeri, polycephla and nobilis generally come from an area that has 12 to 20 inches of rain. The above named plants have never, to my knowledge, been grown in this area. Everything being done now is experimental from germinating to growing to flowering. To date only 50% of the seed germinated show promise of being planted out.

My seed have been collected by and sent to me from two sources: Kings Park and Botanic Garden and the West Australian Wild Flower Society, both in Perth, West Australia.

In a year or two we will know how successful we have been!

Ed. Note: Some references call this the "Showy Dryandra."

Carlton Gardner has taken up the "Golden Protea" as his hobby and he grows them at his Bonsall home.

PHOTO BY BETTY MACKINTOSH

← *Carlton Gardner beside his potting bench. The plants are set-out in the milk cartons.*

Desert Landscaping

Jim Stalsonburg

IN RECENT YEARS "landscapes" of colored sand and decorative crushed rocks have dotted subdivision after subdivision as new owners attempt to create low maintenance gardens with a Western touch. In a short time weeds invade them and rocks and sand mix into a homogeneous horror. (The rocks are handy for youngsters to throw, too!)

A new concept in desert landscaping is to use a few well chosen desert specimens to create the illusion of a desert scene that will be reasonably authentic and very appealing. This would channel the choice of plant material to the most stark and dramatic plants, ones that have been sculptured by nature into unusual and even bizarre forms. The succulents of our own Southern California desert are among the best for this purpose, but specimens from other American deserts will give a larger spectrum.

One of the more dramatic specimens to be considered is the Ocotillo, *Fouqueria splendens,* a native to the California deserts. It supplies a vertical accent and the clusters of bright red flowers at the tips of its slender stems from April to June gives an additional theatrical bonus. Delicate bright green leaves appear after rains. They fall off and are replaced several times in a year, depending upon the amount of irrigation.

Desert Garden at Sea World.

Yuccas are dramatic plants, and when they bloom with a candelabra of flowers (often fragrant), they are glorious. They have stiff pointed leaves and can look very harsh and belligerent and certainly can be if placed in the wrong location near sidewalks or patios. However, if placed where their forms are effectively displayed, they can be the most pronounced feature of the landscape. Their sizes and shapes offer a wide range of accents. Low clumping *Yucca glauca,* sometimes called Bear Grass, has a blue-grey hue and thread-like leaves that radiate from the center. *Yucca pendula* or *recurvifolia* grows no taller than six feet and has flat leaves that bend gracefully toward earth. It has billowy masses of eye catching white flowers in summer. *Yucca aloefolia,* Spanish Bayonet, is named because of the shape of its long, narrow, semi-rigid leaves. It attains a height of from 10 to 15 feet with branches along the stem. In the summer the crowns are filled with white flowers tinged with purple. *Yucca gloriosa,* Spanish Dagger, is much like the Spanish Bayonet, but it has wider leaves that radiate like a sunburst along the tall stem. This one takes a tree form, too, but predominantly branches from a swollen base. The flowers are green-white and appear in late summer. *Yucca elephantipes,* often sold as *Y. gigantea,* is the most dramatic of them all. It has very wide pendant leaves of bright green, without sharp tips. It eventually takes a tree-form and can develop several trunks. Creamy white blossoms appear in late spring. The above mentioned plants should be given primary consideration because of their ease of cultivation and adaptability. Two of our back-country favorites are *Yucca brevifolia,* Joshua Tree, and *Yucca whipplei,* called Our Lord's Candle. The Joshua tree is generally considered the largest of the family, growing to 30 feet if it has enough

Another view of desert garden designed and planted by Jim Staltzonberg at Sea World.

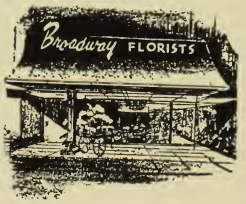
Jim Stalsonburg is Park Foreman of Balboa Park. He has been an avid collector and grower of cactus for 10 years. He is presently a student in the Ornamental Horticulture program at Mesa College. You can see examples of Jim's Cactus Gardens at the Mission and at Sea World.

room for its extensive root system. It bears greenish-white flowers from February to April. It is a bit difficult to grow, but well worth the effort. (We have found that it responds to considerably more water than its native habitat would indicate.) *Yucca whipplei* spends most of its life as a formidable mass of stiff grey-green spike-like leaves. After several years it produces a stem of from six to ten feet tall that bursts into a blazon of white flowers near the tip. There are many, many more Yuccas and variations of those already described, and each offers something unique to the landscape.

The Agave is similar to *Yucca whipplei* in its growth cycle but usually takes longer to complete it. The Agaves are a very large group of plants that offer an amazing variety of leaf forms from small clumps to enormous masses of foliage to add contrast of color and texture to the landscape. The *Agave americana* is often considered a noxious weed, but its value in a landscape theme should not be overlooked. Its huge, broad blue-gray leaves are stark and commanding. *Agave attenuata,* with its soft flesh sunburst of dull light green, is an asset to any theme. The smaller varieties of Agave, such as *parryi* or *hauchucensis,* add a bit more formal touch with their low clustering rosettes. Each has an appeal and effect of its own, but all respond in time with floral displays that stop autos in the street and birds in the sky. When this group of plants completes its life cycle, they suddenly produce a bloom stalk that soars to 10 and sometimes 25 feet (depending on the species) and with an inflorescence as different and bizarre as the plant itself. Most Agaves will set "pups" or off-shoots after blooming and before the mother plant dies. Agaves will give you color, mass, texture and all the essential ingredients for a desert landscape; but most of all, they will give you authenticity.

The Palo Verde Tree, *Parkinsonia aculeata,* is a predominate chaparral plant in a desert landscape. It is the green tree of the desert because of the color of its sparse boughs and foliage. It is a rapid grower to 25 feet and bears umbels of lemon yellow flowers in late spring and intermittently through the year. It is thorny and this adds to its character when it sheds its leaves in the hot days of summer. Other trees that are prevalent in the natural desert are often difficult to obtain and grow. However, you can substitute plant material that will give a wizened, twisted or contorted effect and be far less demanding in their cultural requirements. *Leptospermum laevigatum* or *scoparium, Malalueca nesophila* or *armillaris,* and certain Acacias will, if properly pruned, give the illusion of the hard life of a desert existence.

Once the principal plants have been placed, add some cactus. Choose easy-care ones with beautiful flowers. These smaller plants amplify the larger forms and do not conflict with them. Flat stem *Opuntias, O. chloratica, ursina, elata,* or the wrinkled *basilaris* (all with outstanding flowers) are useful for color and mass. The cylindrical *Chollas, Opuntia acanthacarpa, Parryi, Bigelovii,* and the slight stemmed little *Ramosissima,* will give shape and color. The Golden Barrel, *Echinocactus gausoni;* or the Red Barrel of our desert, *Ferocactus acanthodes;* the hedgehog varieties like *Echinocereus engelmanni* or *fendlesi;* the Easter Lily Cactus, *Echinopsis multiplex,* or maybe some tree forms, as *Cereus peruvianus* or *Consolia falcata*—wait, wait—slow down! It is all too easy to be carried away, and sometimes very difficult to make a decision. Remember, you are attempting to create a realistic landscape, not a collector's jungle. The planting should be limited in number but not sparse; full but not crowded; packed with interest but not confused; and most of all, a credit to the neighborhood, not an eyesore. The creating of a living picture that expresses life and beauty is just as important to the Divine scheme of things as the creation of the Universe.



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A Primer for Name-Callers

Helen Witham

SINCE THE BEGINNING of time, or at least since the beginning of people, plants must have had some kind of names. As sources of food, fiber, shelter or medicine, they must have been talked about and called something, in whatever language the people were using. It is still true that many plants have popular or vernacular names in native languages around the world. In addition to these names, all the different kinds of plants (350,000 or more) have botanical (the scientific, or Latin) names. These are used, accepted and understood by botanists everywhere in the world. Very comforting it is to pick up a book written, say, in Japanese, and see the names of the plants in the familiar Roman type. It is a little startling to find that "you, too, can read Japanese."

Plants have to have names for the same reason people do: there are so many of them. Generally speaking, a plant name consists of two words, one referring to the genus, one referring to the species. The two in combination comprise the name of the plant. This method of naming plants is known as the "**binomial** (two-word) system." The first word is the name of the **genus** (Plural, **genera**). A genus is a group of closely related species of plants which are more like each other than like any other kind of plant. Example: A Tiger Lily is more like an Easter Lily than it is like a rose or a watermelon, so these and all other species of lilies are placed in the genus *Lilium*.

A species is a population of individuals which have a common pool of hereditary characteristics and consequently resemble each other very closely. In other words, all the plants in a particular species look alike because they have all descended along the same lines, from the same ancestors. Example: all the *Magnolia grandifloras* look very much, but not exactly, like all the other *M. grandifloras*. Or take the Tiger Lily mentioned before—you recognize it when you see it because it looks like other Tiger Lilies you have seen.

Consider the crassula in the illustration. *Crassula* is the name of the genus to which the plant belongs. There are several hundred other kinds of crassulas, so the genus name is followed by a word which indicates the species of this particular kind, a word which tells us which of the many kinds of *Crassula* it is. This second word is known as the "specific epithet." Our *Crassula* bears the epithet *perforata*, a handy descriptive word meaning just what you think it means: perforated, or bored through. It refers, of course, to the way the upper leaves are joined in pairs around the stems, so that the stems appear to have grown through, or perforated, the leaves. So its name is *Crassula perforata*.

The binomial system works very well, but scientists found that it does not go quite far enough in certain cases, so categories below species were established to take care of minor differences, i.e., those differences not so great as to warrant the creation of new species. In these cases a third word is added to indicate that the plant belongs in one of these categories: subspecies, (abbreviated ssp.), variety, (var.) or form, (f.). Hence we have names like *Prunus virginiana* var. *demissum*. This is the Chokecherry of Southern California mountains.

Then there are the many plants which have been developed, selected, or improved for purposes of agriculture and horticulture. These are known as "**cultivars**"—plants not found wild anywhere in the same form. They have been developed in the field, garden, or nursery; modified in some way to yield a product of more economic or aesthetic value. This category, cultivars, includes most of the plants we deal with in agriculture and horticulture, and to some extent, in forestry. The names of these horticultural varieties, or cultivars, are capitalized, enclosed in single quotation marks, and appear third in line, (or second). Example: *Liquid-ambar styraciflua* 'Palo Alto.' Often the specific epithet is omitted in informal writing, on nursery tags, and in conversation, and this tree would be referred to simply as *Liquidambar* 'Palo Alto.'

Now let's consider the names of the other plants illustrated.

WESLEY FARMER

Helen V. Witham, a native San Diegan, has always been interested in wildflowers. She constructed the canyon trail wildflower garden in her home 7 years ago. For the past 5 years she has been studying, writing, and lecturing on the native plants. She is an active member of The California Native Plant Society and the Theodore Payne Foundation for Wildflowers and Native Plants. She is assistant Curator of Botany at the Natural History Museum where she also teaches classes and leads nature walks.

Dendromecon rigida

The Greeks had words for this. The generic name, in Latin of course, is made up from the two old Greek words for "tree" and "poppy," and the epithet is the Latin word for "stiff." Simple, isn't it, when you consider the way Tree Poppy grows? However, not all plant names are so helpful. Take the oak—its Latin name is *Quercus*. So far, so good, helpful if you followed Caesar into the woods of Gaul; but then we have a long series of *Quercus* named in honor of people: *Q. kelloggii, Q. engelmannii, Q. ganderi, Q. garryana, Q. wislizenii!* (Hard-to-spell people, at that.) There is nothing for it but to memorize, when up against one of these. And here is something to remember: for correct usage nowadays write these epithets without capital letters. The people are still honored, but honored in lower case. In older books, the epithets made from proper names of persons or places were capitalized but now all epithets are treated alike—no caps.

Three Species of *Leptospermum*

You probably have these in your garden. *Leptospermum laevigatum* is Australiam Tea Tree, *L. scoparium* is New Zealand Tea Tree, and *L. florepleno* is Double-Flowered Tea Tree. The name of the latter is written also this way: *L. scoparium* 'Florepleno' since it is now considered a cultivar. (Note: in a paragraph such as this, or in a list for planting, or a catalog, the initial is used for the genus name, after the first time the plant is mentioned.)

Further notes on the way botanical names appear in print:

In horticultural journals it is now the accepted practice to use italics for the botanical names. In preparing a manuscript or typescript, underline them, and they will magically appear in italics when published.

In the unlikely event that you need to use one of the abbreviations ssp., var., or f., do not underline these, but underline the following word. Ordinarily the words of the plant name are written 1, 2, 3, and they appear like this: *Prunus virginiana demissum*, or *Jasminum officinale grandiflorum*.

Do not underline such names as 'Stardust,' 'Kentucky Wonder,' 'Johnathan,' since they should not appear in italics.

The makers of catalogs usually use different type, such as boldface, for plant names rather than using italics. Some use capital letters; but I don't need to tell gardeners how to read catalogs!

In conclusion, may I say this: they are not "difficult," just unfamiliar, those scientific names we keep shying away from. How about geranium, or jacaranda, or philodendron, or dahlia? Maybe you think those are "common names" since we know them by those names? On the contrary, those are botanical names which have become familiar through common usage. That's how easy it is: all we need do is use the correct names until they become so familiar they seem "common."

Some knowledge of Greek and Latin is useful in learning plant names, but it also works the other way; learn plant names and you find you are learning Greek and Latin.

ALFRED HOTTES

*A Source-Book of Biological Names and Terms**, by Dr. Edmund C. Jaeger, is excellent for this kind of learning.

Caution; as with any other dictionary-type book, you may find yourself reading the item above or in the next column. For example, you may plan to look up the "pedi" in *cypri* and learn from the adjoining column that "pedrin," from the French word pebrine is, "a disease of silkworms accompanied with the appearance of black pepper-like spots," and now let's see you work that into a conversation!

*Jaeger, Edmund C. A Source-Book of Biological Names and Terms. Charles C. Thomas, Publisher. Springfield, Ill. Available in public libraries, from bookstores, and Natural History Museum Gift Shop.

Tijuana Tidbits

Rosalie Garcia

TO VISIT A CITY of 400,000 people by walking across the Border into Tijuana, Mexico is a privilege that millions enjoy every year, but thousands of San Diegans never do. Since the drug traffic has imposed Operation Intercept, it really is not so easy to do anymore. Sometimes it can take an hour or more, inching along in a car, but many park their cars on this side and walk over. This we did recently and found we had been missing a lot of local color.

About fifty yards beyond the Mexican gates a panel truck dripping with coolness selling chilled canned juices was a first welcome stop. We went up the ramp and around the Aduana (Custom House) and down to the bus stop. We took one marked Central Linea to go up town for six cents. Just as the bus pulled out, a ten-year old boy in a fringed hat with a guitar boarded (without paying), went to the back and started serenading lustily. By the time the bus arrived on the main drag, Calle Revolución, he had passed the hat. We got off at Second Street, across from Woolworth's.

The average tourist seldom gets off this main street or one block West on the numbered side streets where the best restaurants are. But Tijuana of the Mexicans exists off Revolución. Thousands of stores, shops and markets are where the Mexicans shop and eat.

All the little glass caged stalls and wagons are nearly gone off Revolución, but they exist on the side streets. From them one can buy local foods and snacks: hot, cold, liquid or solid, and often delicious. Are they sanitary? One must judge. In glass cages they are protected from dust and flies. Are they fresh? I prefer to have mine prepared in front of me. If I buy a wedge of pineapple, jicama, cucumber, papaya or cocoanut, I ask that it be cut fresh. It is served in a paper napkin and seldom costs over a dime, unless one is very haughty and prosperous looking. Roasted corn in the husks is hot and served dripping with butter in napkins. This delicacy is most awkward to eat, but I have been guilty of finding a nice curb and sitting down to enjoy it, fighting to keep the butter off my clothes and dripping off my elbows. A little boy with a bucket of hot tamales is usually around, and a good hot-hot tamale on one of those windy days that often come to Tijuana hits the spot. Tacos and tostadas are best made up while waiting, and are available, in the pushwagons or little hole-in-the-wall shops, even on Revolución. They are ten and fifteen cents and most appetizing. The custard boy is lurking somewhere with versions of flan, the favorite Mexican dessert. He has them in little individual paper cups for ten or fifteen cents. They are made of eggs and milk with a caramel flavor from burnt sugar. A candy boy with great trays of candied pumpkin, squash, cactus and cocoanut may come along. I do not buy unless the tray is covered with a plastic sheet. (I once bought a whole tray which was still warm. I watched the tray while the boy went to find a sack to put it in.)

The bakeries along Niños Heroes, the street parallel to Revolución and two blocks west (to the right) between First and Fifth Streets, abound in cookies, loaf cakes, breads, fold-over pies and squares of pies. The round pie that we know is rare. All look crusty and sugared, and if one likes the flavor of lard, they are delicious. Hog fat, their baking fat, is responsible for the crustiness and rich brown. Puff pastries are well done, but hard rolls and round loaves of bread are their best products, in my estimation. An apple or pineapple square or fold-over, often still warm, is a good snack to eat as one goes along looking into the shops.

Choritos, fried sticks of corn batter about the size of shoe-string potatoes, are favorite snacks found on the pushcarts that can grease one thoroughly as he strolls along.

On this same street next to the Cathedral where continuous services seem to take place, is a big market with tiny restaurant stalls along the sides. I don't pretend that it is tidy and clean, but it is where thousands of the laboring class of Mexicans can get a good and filling meal for a quarter. I have often joined them in enjoying a big bowl of fish soup. I walk around until I find a counter that looks cleaner and order sopa de pescado. It is ladled out of a big steel tub, sitting on a gas flame. On the counter are baskets of warm tortillas covered with a towel or in plastic boxes with lids, and platters of chopped onion, cilantro (the Mexican parsley) lemon wedges and often salsa of tomatoes and peppers. It is my observation that coffee is not the drink of the average Mexican. He prefers a big bottle of red or orange soda pop, sweet as syrup. Not all eat soup. One can order boiled or fried chicken and fish, fried rice and beans and the chopped vegetables. The first thing a Mexican cook must learn is how to chop, for chopped vegetables and meats make up the filling and garnish of many dishes. Am I afraid to eat here? No, for I figure that boiling hot food is sterilized and the chopped vegetables are fresh, for they are constantly being replenished. It is very gay there, friends are eating with friends, the street musicians stroll through, and the customers often join them in the songs. A tourist is noticeable, but is allowed to join them.

But my favorite place is the big old market on Sixth Street, two blocks left off Revolución, and down the hill. It reminds me of the one that used to be in New Orleans before Progress took over. This one never closes, because it has no walls, just a roof. It fills a whole block. It is both wholesale and retail where the farmers' trucks are constantly unloading. It is a Holy Mess, and compared to our standards of sanitation almost a crime. At the back are piles of over ripe fruits and vegetables being pawed over by children and the poor who are gorging themselves and picking out pieces to carry away. They are welcome, for then there is less to haul away. There are beggars, lightly touching one, pitifully beseeching. This is Mexico, remember. But there is such an atmosphere of abundance and richness in variety that the poverty just becomes an accepted part. Piles on piles of melons, potatoes, avocados, tomatoes, peaches, nectarines, loquats, papayas, mangoes, citrus; tubs of all kinds of beans, rice, dried plums, pumpkin seeds, roselle flowers; stacks of cheeses,

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Rosalie Garcia has been growing vegetables "all her life." She enjoys growing and eating new vegetables. She departs from her "how to grow vegetables" theme this month and by popular request writes about Tijuana.

dried meats and fish, hard rolls; pots of herbs; and bunches of exotic greens like verde do lagos, a succulent type greens that can be eaten cooked or raw. Market fruits are sweeter and riper than we get because they come directly from the farms and are harvested nearer peak ripeness. I cannot say the same for the vegetables, which are often too mature, except tomatoes which are sweeter and riper.

The front stalls are attractively arranged. Bunches of the small Mexican bananas make a fringed valance along the tops of the stalls, and five-gallon glass jars of juices in white, orange, red and yellow, tinkling with chunks of ice give color. Mexicans are great juice drinkers and make juices of all sorts of fruits, grains and flowers. They make them too sweet to suit me, but for ten cents I have sampled roselle (made of the blossoms), lime with chia seeds, papaya, banana, rice and orange. They use electric juicers, and will whiz up a cup of any juice, carrot, tomato, pineapple.

In season there are many fruits we never see in our markets such as: the mamay, a tannish, suede-skinned, egg-shaped fruit with flesh and flavor like a baked yam; large yellow guavas; the melon-sized papayas which are best when they are so ripe they are mushy; the small golden mango with bigger seeds, but sweeter; and the big green mangoes, with the red blush which taste like turpentine if they are ripe. The large golden pineapples are more mellow than sweet, but are not as astringent as the ones we get. The many varieties of peaches, mostly cling seed, seldom come to our markets. The loquats are large and sweet.

The interior stalls of this market contain a tortilla factory employing ten people who are mixing and baking tortillas on great iron grills, and dipping their hominy from tall garbage can containers. Glass bins of roast meats, carnitas, mostly pork in chunks of two or three pounds are among the staples sold.

Most foods are sold by the kilo, slightly over two pounds. At first food seems high, but a quick division by two finds most food very reasonable. Except where prices are posted, one is never sure that he is not being quoted a tourist price, but at that, it is usually less than we are used to. A big pineapple is fifty cents, mangoe are seventy and eighty cents a kilo, tomatoes are ten or fifteen cents a kilo.

Great bins of candies are most attractive (to me). Mexicans candy just about any solid fruit. One of their favorites is quince boiled down with sugar until it is a solid cake to be sliced or cut in squares. They use yams, pumpkin, squash, cactus, cocoanut or just milk and sugar boiled down to a solid.

With all this abundance of foods I cannot resist sampling and have eaten a fine and complete lunch there, ordering one course at a time. I usually start with a sea food cocktail. On my recent trip I had clams, but I have had oysters. The vendor had a pile of clams, big and little, a little tank of water with a spigot draining over a bucket below. He opened the clams, cleaned out the edible parts, chopped them into a paper cup and passed it over to a partner who squeezed in half a lime and looked at me for permission to add chopped vegetables, which I declined. I ate it as I looked around. The

taco man made me one of roasted pork skins (chicerones) and chopped vegetables with a squirt of hot sauce. With that I had a cup of lime juice from one of the big glass tanks. I should have, but I did not resist the tamale boy with a steaming roll of spicy meat in a well cooked husk. I had a mushy slice of papaya, a golden mango and a crunchy cocoanut cake with a glass of rosy roselle juice. There are prepared seafoods and counters where one may eat them, but I prefer to have mine made up while I wait.

Being pretty full after I had made the rounds of the open air market on this trip, I met my husband at Second just off Revolución to the west, where we took the bus for the Border. This time we were serenaded by a youngster with an accordion accompanied by his five-year old brother decked-out in a charro suit. We got in line and walked across the Border in about ten minutes, as always feeling that we were returning home after foreign travel.

Can one bring any of these delectable foods home? Yes. The Plant Quarantine Division of the Department of Agriculture at the Border lists what can be brought over. All vegetables except potatoes and sweet potatoes are permitted. All fruits are prohibited except: bananas, melons, berries, papayas, pineapples, lychees, dates, grapes, lemons, limes, cactus and ceriman (a friut I have never happened to find in the markets). One cannot bring mangoes, oranges, avocados, except those without seeds. Most nuts and dried fruits and vegetables, baked goods and candies are allowed. These lists do change from time to time, and it is well to ask before bringing over something doubtful. If it's not allowed, one must surrender it at the Border.

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PHOTO BY BETTY MACKINTOSH

Balboa Park Trees

Ernest Chew
Supervisor of Nursery Landscaping,
City of San Diego

SEVERAL SAN DIEGO SCHOOLS decided to have a "Tree Planting" in Balboa Park as an Arbor Day celebration on March 17, 1905. On the west hillside of Cabrillo Canyon, east of Palm Street, about sixty Monterey Cypress *(Cupressus macrocarpa)* were to be planted. Promptly at ten o'clock the pupils assembled. The trees were planted and marked with the names of the participating schools. A telegram from Governor George Pardee arrived which stated, "The trees will live as long as you do and longer and every year they will make San Diego more beautiful."

Well, time and nature have proven Governor Pardee wrong.

As with many agricultural crops, when they are overplanted, diseases affecting that plant become rampant. With the overplanting of Monterey Cypress it was the Cypress Canker, *Coryneum cardinale,* that has spread. Most of the Cypress trees planted on that auspicious day are gone.

To fill the void, the Park Department begun reforesting this area with *Araucaria cunninghamii,* a large timber tree from Australia. Commonly called the Hoop pine, this tree will eventually reach a height of ninety feet or more.

Note: Historical material taken from THE ROMANCE OF BALBOA PARK by Florence Christman.

Ed. Note: This delightful book is a MUST for anyone interested in Balboa Park and the history of San Diego. It can be obtained in the Park at the Information Center in the House of Hospitality and at the shops in the Fine Arts Museum and the Natural History Museum. Florence Christman is often at the Information Center, and if you are lucky you can meet her and have her autograph the book.

gardening with WORMS

John E. Miller

CHARLES DARWIN ONCE WROTE, "Man owes his entire living to a superficial layer of topsoil laid down by the earthworms."

There are about five thousand varieties of the earthworm; soft bodied, egg laying, earth burrowing creatures. A native worm *Lumbricus terristris,* called Angleworm, Night-Crawler and Rain worm, is valuable for fish bait but should not be overlooked in gardening. It can bore down 18 to 20 feet deep and have been frequently found at depths of 6 and 8 feet. The value of this large worm is readily apparent. It has a proboscis or nose similar to an elephant. It can bore right through hard-pan. (This I have observed in Wright's Park in Tacoma, Washington.) This worm should do a magnificent job of soil aeration and dredging minerals from deep in the ground as well as enriching the soil.

For general work in the garden the red worm cannot be beat. It is called the red gold hybrid, red wriggler, or Egyptian red gold hybrid—all the same *Helodrilus foetidus.* These worms aerate the soil, improve the texture and build plant food from what they eat. A 1 to 3 lb. coffee can makes an efficient unit that can accommodate up to five hundred breeders for up to one month and keep one hundred happily for several months. (Make this mix 9 days before you plan to use it. ¼ sand, ¼ fertilizer, ¼ peat moss, ¼ loam—mix, sprinkle thoroughly and turn every three days.)

The secret of success in impregnating the soil with any kind of earthworm is that it be done only in the evening. Watch for birds during the few minutes it takes for the worms to drill down.

ORGANICS SHOULD BE PRACTICED AS ANY POISONOUS SPRAY CAN KILL THE WORMS. In fertilizing avoid ***Hydrate lime*** or ***Sulphate of*** **Ammonia**—use natural fertilizers or one of the sludge products. The liquid fish fertilizers are excellent, too. For general soil building any brown seaweed that washes up on the beach is good. Planted about one shovel depth in the ground it will not smell and will help keep out bugs.

Why should we use any poisons if a natural way can be found to keep down garden pests? So many people are prone to run to their local nursery and demand a product that will give immediate results for any infestation that comes up. These may be easier to use, but one may be compounding the troubles.

There are organic sprays that will not harm earthworms, pets or children. Onion and garlic sprays are inexpensive and simple to make. My formula is: 3 bunches of green onion (eat the bottom), 1 section of garlic, 1 tablespoon of Cayenne pepper. Combine in a blender with a small amount of water. Add to one gallon of water and let stand for 48 hours. Strain well and use as a spray every 3 to 4 weeks.

Planting onions, garlic, Borage, Tansy, Mint, Marigolds and petunias in your garden will help to keep the bugs down, too.

Let this be my battle cry,
Total Ecology, Organics or die.

John Miller grows worms at his home which he calls "Wormy Acres." He will answer any questions about gardening with worms. Call him at 283-9906.

California Garden Index for Volume 60

Vol. 60, No. 1-6 Feb-Mar '69 — Dec '69 — Jan '70

ALOE POLYPHYLLA ..... Aug-Sept '69, p. 31
Hummel's Exotic Gardens, Leucadia—Photo only
ARBOR DAY ..... Apr-May '69, p. 27
California Nurserymen's Assoc.—Tree Planting in Old Town
AZALEAS—Sarver, Rosalind ..... Feb-Mar '69, p. 30-31
BEES—SWARMS ..... Aug-Sept '69, p. 26
About bees
BEGONIAS, TUBEROUS ..... June-July '69, p. 29-30
Voss, Howard M.—Loving care for tuberous begonias
BIOGRAPHY—ASPER, HOWARD ..... Oct-Nov '69, p. 17-21, illus.
Norrell, Virginia—Proteas, a visit to the Escondido home and growing grounds of Howard Asper
Christman, Florence—Compliment for Miss Rainford ..... Feb-Mar '69, p. 12
Craig, Tom—Serdensky, Barbara—Tribute to a friend ..... Apr-May '69, p. 7-24, illus.
James, George—Meet our new garden care feature ..... Apr-May '69, p. 32
Kirkpatrick, Mrs. John—Norrell, Virginia—Surprise for Mrs. Kirkpatrick, flower arrangement teacher extraordinary ..... Dec '69-Jan '70, p. 5 illus., p. 6-7
Rainford, Alice M.—Leaves from a California Florist's Notebook, Introduction ..... Feb-Mar '69, p. 12
BONSAI ..... Aug-Sept '69, p. 25
Chrysanthemum as a bonsai, by Poway Valley Garden Club
BOOK REVIEWS—Benson, Lyman ..... Dec '69-Jan '70, p. 27
Cacti of California—Stanford Univ. pr. 1969—244 p. plates, illus. $7.95
Brandenberger, Nelda H.—Interpretive flower arrangements—Hearthside pr. 1969, 157 p. illus., $6.95 ..... Oct-Nov '69, p. 8
Coon, Nelson—Using wayside plants—Hearthside pr. 1969 ..... Oct-Nov '69, p. 21
Nehrling, Arno & Irene—Easy gardening with drought resistant plants. Hearthside pr. 1969 ..... Feb-Mar '69, p. 20
Noble, Mary—You can grow cattleya orchids ..... Apr-May '69, p. 25
Randall,Harry—Irises—Britain, 1969. Order from Taplinger publ. 29 E. 10th, NYC 10003. 76 p. illus., plates, $8.95 ..... Oct-Nov '69, p. 8, 11
Sunset Mag.—How To Grow Bulbs—Paper, rev. ed., 96 p. illus., $1.95 ..... Feb-Mar '69, p. 18
CABBAGES—GARCIA, ROSALIE F. ..... Aug-Sept '69, p. 19-21, illus.
Cabbages the beautiful plant and so edible
CACTUS—COCHEMIA POSELGERI ..... Dec '69-Jan '70, p. 26
Phelps, Lee N.
Dolichothele Longimamma—
Phelps, Lee N. ..... Dec '69-Jan '70, p. 26-27, illus.
Turk's Cap—Voss Gilbert—Observations of the Turk's Cap, melocactus ..... Apr-May '69, p. 31, illus.
CALIFORNIA GARDEN—HISTORY ..... June-July '69, p. 11
Robinson, Alfred D.—Open letter to members of San Diego Good Folks (reprint, 1910)
CALIFORNIA NURSERYMAN'S ASSOC. ..... Apr-May '69, p. 27
Brisbane box tree planted in Old Town
CAMELLIAS ..... Oct-Nov '69, p. 22
Antonicelli, Frank—About Camellias
CHRYSANTHEMUMS ..... Aug-Sept '69, p. 25
Chrysanthemum as a bonsai, by Poway Valley Garden Club
CITRUS—TRISTEZA VIRUS ..... June-July '69, p. 24
Threat to citrus, "quick decline" or tristeza virus
CONTAINER GARDENING ..... Oct-Nov '69, p. 22
Repotting house plants, two favorite potting mixes to consider
Walters, John R.—Orchids as house plants ..... Apr-May '69, p. 22-23
CORSAGE MAKING ..... Oct-Nov '69, p. 9, 11, illus.
Buman, Carolyn J.—Corsages
DAFFODILS—Witham, Helen V. ..... Feb-Mar '69, p. 19, illus.
DAHLIA SHOW, Aug 2-3, '69 ..... June-July '69, p. 19-20, illus.
Sisk, Larry—Come to the largest Dahlia exhibition ever staged in the West
Show, Aug 2-3, '69 ..... Aug-Sept '69, p. 9-10, illus.
DAHLIAS—CULTURE—Sisk, Larry ..... Feb-Mar '69, p. 31-32; Apr-May '69, p. 33-34; June-July '69, p. 30-31; Aug-Sept '69, p. 18; Oct-Nov '69, p. 30; Dec '69-Jan 70, p. 30-31
DAHLIAS—CUTTINGS—Sisk, Larry ..... Dec '69-Jan '70, p. 30-31
Dahlia diggings ..... Aug-Sept '69, p. 18
DEL MAR FAIR see **CALIFORNIA EXPOSITION**
DELPHINIUM—Witham, Helen V. ..... Aug-Sept '69, p. 5-7, illus.
EPIPHYLLUMS—How to grow ..... Aug-Sept '69, p. 21
Norrell, Virginia—Among the epiphyllums, a garden visit with Dr. J. W. Troxell ..... June-July '69, p. 7-8, illus.
FLORAL ASSOCIATION ..... June-July '69, p. 11
Robinson, Alfred D.—Open letter to members of San Diego Good Folks (reprint 1910)
FLORISTS ..... Feb-Mar '69, p. 12
Rainford, Alice M.—Leaves from a California Florist's Notebook, ed. by Alice M. Clark, pt. 1 Color
Pt. 2 Color Inside ..... Apr-May '69, p. 29
Table Decoration ..... June-July '69, p. 25-26
Relation of flowers and containers ..... Aug-Sept '69, p. 22
FLOWER ARRANGERS' GUILD ..... Apr-May '69, p. 17
Casale, Mrs. John—Flower Arrangers' Guild in Fiesta de Orquidas
FLOWER ARRANGING ..... Dec '69-Jan '70, p. 5, illus. p. 6-7
Norrell, Virginia—Surprise for Mrs. John Kirkpatrick
Rainford, Alice M.—Leaves from a California Florist's Notebook, ed. by Alice M. Clark, pt. 1 Color ..... Feb-Mar '69
Pt. 2 Color inside ..... Apr-May '69, p. 29
Table Decoration ..... June-July '69, p. 25-26
Relation of flowers and containers ..... Aug-Sept '69, p. 22
Jones, Barbara—Morimono ..... Dec '69-Jan '70, p. 20, illus.
Kirkpatrick, Mrs. John—Favorite arrangements ..... Dec '69-Jan '70, p. 6-7, illus.
Winning arrangements from recent shows ..... June-July '69, p. 27, illus.
FLOWER SHOW SCHOOL—Ford, Mrs. H. K. ..... Feb-Mar '69, p. 16
Innis, Virginia M.—"Here come de judge"—now hear this! ..... Aug-Sept '69, p. 12-13, illus.
FUCHSIAS—Stubbs, Annabelle ..... June-July '69, p. 22-23
FUCHSIAS—CULTURE ..... Feb-Mar '69, p. 32-33; Apr-May '69, p. 34-25; June-July '69, p. 31-32; Oct-Nov '69, p. 31, 34, illus.
Stubbs, Annabelle ..... Dec-'69-Jan '70, p. 31
GARDEN CLUBS—DIRECTORY ..... Inside back cover of each issue California Garden
GARDENING ..... Dec '69-Jan '70, p. 18-19
General garden operations for December (reprint, C.G., Dec 14)
Hall, George P.—June garden (reprint, C.G. 1910) ..... June-July '69, p. 11-12
Robinson, Alfred D.—Thoughts in the garden (reprint C.G. 1909) ..... Aug-Sept '69, p. 23
GARDENING see also **PLANTS**
GARDENING—CALIFORNIA ..... Feb-Mar '69, p. 15-16, illus.
Whiteside, Dorothy P.—Trials of a transplanted gardener
GARDENING—GIRL SCOUTS ..... Oct-Nov '69, p. 25
Greenlaw, Donna—Gardening in natural environment or in their own backyards learned by S.D. Girl Scouts
GARDENS, MISSION SAN DIEGO ALCALA ..... Dec '69-Jan '70, p. 16
Stalsonburg, Jim—Propagation by proxy
GARDENS—MOBILE HOMES ..... June-July '69, p. 15-18, illus.
Garcia, Rosalie F.—Trailer gardens
GARDENS—ROBINSON, ALFRED D. ..... June-July '69, p. 13-14
Walks in my garden (reprint, C.G. about 60 years ago)
GARDENS—S.D. MARINE CORPS RECRUIT DEPOT
Wellington, Gerald—Landscaping of San Diego Marine Corps Recruit Depot ..... Feb-Mar '69, p. 26-29, illus.
GARDENS, SAN DIEGO ZOO ..... Dec '69-Jan '70, p. 14-15, illus.
Aller, Timothy—Garden Societies donate plants
GERANIUMS—Curtis, Mike ..... Feb-Mar '69, p. 6-10, illus.
Curtis, Muriel—Geraniums ..... Aug-Sept '69, p. 18
GROUND COVERS ..... Aug-Sept '69, p. 24-25
Colorful gardens, by Poway Valley Garden Club
GROUND COVERS see also **LAWNS**
HERBS ..... Feb-Mar '69, p. 22-24, illus. bibl.
Carswell, Helen D.—Herbs From Culpepper's Complete Herbal ..... Dec '69-Jan '70, p. 19
HOUSE PLANTS see **CONTAINER PLANTS**
IRIS—AMERICAN IRIS SOCIETY ..... Aug-Sept '69, p. 32
American Iris Society Youth Membership
IRIS SHOWS, Apr 26-27, '69 ..... June-July '69, p. 21-22, illus.
Bunker, Penny—6th Spring Iris Show, a report
IRIS SHOWS, Nov 16, '69 ..... Dec '69-Jan '70, p. 17-18
Bunker, Penny—5th Annual Reblooming Iris Show
IRISES—CULTURE ..... Feb-Mar '69, p. 34; Apr-May '69, p. 35-36; June-July '69, p. 32-33
Hutchinson, Frank—Irises
Gunther, Bill—Irises ..... Aug-Sept '69, p. 32
Roberts, Sanford—Irises ..... Dec '69-Jan '70, p. 32
IRISES—REBLOOMING ..... Dec '69-Jan '70, p. 17-18
Bunker, Penny—5th Annual Reblooming Iris Show
Hutchinson, Frank—Irises ..... Apr-May '69, p. 35-36
LANDSCAPE DESIGN CONFERENCE IV, 1969 ..... Aug-Sept '69, p. 11
Mathews, Corinne—Landscape Design Conference IV
LATH HOUSE (reprint, C.G. Oct 1910) ..... Oct-Nov '69, p. 24

LAWNS ..... June-July '69, p. 23
Cut yard work with spray "pruning" (malleic hydrazide)
Pre-emergence herbicide for spurge ..... Dec '69-Jan '70, p. 21
ORCHID SHOWS, Apr 17-20, '69 ..... Apr-May '69, p. 12, illus.
Fiesta de Orquideas
ORCHID SOCIETIES ..... Apr-May '69, p. 17
ORCHIDS ..... Apr-May '69, p. 15-16
Escobedo, Florence—Orchid species
Walters, John R.—Can you grow orchids outdoors in San Diego? ..... June-July '69, p. 9, 34, illus.
Walters, John R.—Orchids, a growing hobby ..... Apr-May '69, p. 18
Walters, John R.—Orchids, as house plants ..... Apr-May '69, p. 22
ORCHIDS, CYMBIDIUMS ..... Apr-May '69, p. 36-37
Fordyce, Frank—What to do for cymbidiums in April
Hetherington, E.—Make hay in April-May for next year's blooms ..... Apr-May '69, p. 28
ORCHIDS, CYPRIPEDIUMS ..... Apr-May '69, p. 19, 20
Collins, Daniel—Cypripediums . . . simplified
ORCHIDS, PHALAEONOPSIS ..... Apr-May '69, p. 23, 27
Carlson, Ellwood J.—Phalaenopsis culture
ORCHIDS—DISEASES ..... Apr-May '69, p. 14, illus.
Fordyce, Frank—Orchid leaf fall—what does it mean?
ORCHIDS—PROPAGATION ..... Apr-May '69, p. 18
(Meristem Process) Walters, John R.—Orchids, a growing hobby
ORCHIDS—VARIETIES ..... Apr-May '69, p. 15
Escobedo, Florence—Orchid species
PESTICIDES—WEEDS ..... Dec '69-Jan '70, p. 21
Pre-emergence herbicides for spurge
PLANTS ..... Apr-May '69, p. 32-33; June-July '69, p. 28-29, illus.; Aug-Sept '69, p. 28-30; Oct-Nov '69, p. 28-30; Dec '69-Jan '70, p. 28-30
James, George—Plants and their environment. Soils
PLANTS—HARMFUL ..... Dec '69-Jan '70, p. 34
What does your garden grow?
PLANTS—RARE ..... Feb-Mar '69, p. 10
Rainford, Alice M.—Wanted! a plea for the growing of choice plants
PLANTS—INSPECTION ..... Aug-Sept '69, p. 24
Plant pests intercepted here
PLANTS—PRUNING ..... June-July '69, p. 23
Cut yard work with spray pruning (maleic hydrazide)
PLATYCERIUMS ..... Feb-Mar '69, p. 13-14, illus.
Aller, Timothy—Staghorn ferns at the San Diego Zoo
POETRY ..... Oct-Nov '69, p. 16
Charles, Elizabeth R.—Irish blessing
de Lhorbe, A. K.—Chrysanthemums ..... Aug-Sept '69, p. 25
Espinas y Flores—Thought ..... Aug-Sept '69, p. 25
Ferguson, Herma—Rose show ..... Oct-Nov '69, p. 6
Field, J. T.—Southern California winter ..... Dec '69-Jan '70, p. 25
Hinkson, Katherine—Visions of spring ..... Feb-Mar '69, p. 5
Ketcham, Arthur—Prayer for a little garden ..... Oct-Nov '69, p. 34
Longfellow, H. W.—Flowers ..... Aug-Sept '69, p. 7
Otis, Arthur F.—Flower philosophy ..... June-July '69, p. 14
Rosetti, Christina—Day of roses ..... Oct-Nov '69, p. 33
Van Dyke, Henry—Rose ..... Oct-Nov '69, p. 28
POISONOUS PLANTS see **PLANTS—HARMFUL**
POPPY—ICELAND ..... Oct-Nov '69, p. 5, 34, illus.
Delgado, Lucille—Iceland poppy, papaver nudicaule
PROTEAS ..... Oct-Nov '69, p. 17-21, illus.
Norrell, Virginia—Proteas, a visit to the Escondido home and growing grounds of Howard Asper
PRUNING ..... June-July '69, p. 34
Presidio Nursery talks about pruning
See also the name of the plant, with the sub-head "e.g., Roses—Pruning."
PRUNING—CHEMICAL ..... June-July '69, p. 23
Cut yard work with spray pruning (maleic hydrazide)
QUAIL GARDENS FOUNDATION ..... Feb-Mar '69, p. 14
Jannoch, Mary L.—News notes
RANCHO SANTA ANA BOTANIC GARDEN Dec '69-Jan '70, p. 23-24, illus.
Gunther, Bill—Rancho Santa Ana Botanic Garden
RECIPES—Herb recipes from readers ..... Feb-Mar '69, p. 25
Hersey, Jean—Rose petal cookies & syrup for them ..... Oct-Nov '69, p. 22
ROSARIANS ..... Aug-Sept '69, p. 34
San Diego County Consulting Rosarians
ROSE SHOWS Apr 12-13, '69 ..... Feb-Mar '69, p. 20
Schmidt, Loraine—Spring Rose Show
Streeper, Richard D.—Pruning date determines blooming date for show entries ..... Dec '69-Jan '70, p. 33
ROSES—Kirk, James A. ..... Aug-Sept '69, p. 33-34, illus.
Red rose as rent, Westgrove, Pa. ..... Apr-May '69, p. 27
ROSES—SAN DIEGO ROSE ..... Feb-Mar '69, p. 21, illus.
Rose San Diego is officially planted; with list of donors
ROSES—CULTURE ..... Apr-May '69, p. 37-38, illus.
Hershey, J. W. & M. J.
Kirk, J. A. ..... Aug-Sept '69, p. 33
Streeper, Richard ..... Oct-Nov '69, p. 32-33; Dec '69-Jan '70, p. 33-34
ROSES—MILDEW ..... Aug-Sept '69, p. 25
ROSES—PLANTING ..... Oct-Nov '69, p. 7, illus.
Plant roses in the fall
ROSES—PRUNING—Streeper, Richard ..... Dec '69-Jan '70, p. 33-34
ROSES—VARIETIES ..... Apr-May '69, p. 21
Roses recommended by San Diego Rose Society
SAN DIEGO—PARKS ..... June-July '69, p. 12-13
(Historical Sites) Blochman, L. H.—San Diego the historic. (Reprint C.G. 60 years ago)
SAN DIEGO BOTANICAL GARDEN FOUNDATION Apr-May '69, p. 21
About planning, progress Garden Cultural Center
Betts, Joan—Plans laid for the ground breaking in Balboa Park, Nov 9 ..... Oct-Nov '69, p. 15
Officers '69-'70 ..... Oct-Nov '69, p. 15-16
SAN DIEGO COUNTY FROST WARNING ..... Oct-Nov '69, p. 34
Moon, James M.—Frost warnings available
SAN DIEGO COUNTY FAIR—DEL MAR See **SOUTHERN CALIFORNIA EXPOSITION**
SAN DIEGO 200th ANNIVERSARY CELEBRATION Apr-May '69, p. 11
Auto Club of S. Calif. Road Map Guide available
SEEDS—Colored seeds ..... Aug-Sept '69, p. 7
SEEDS—EXCHANGES ..... Oct-Nov '69, p. 34
Gardeners' Forum Garden Notes
SHRUBS—PLANTING ..... Dec '69-Jan '70, p. 22
Aljibury, F. K.—Planting landscape trees and shrubs
SOILS ..... Apr-May '69, p. 30
Bichowsky, Robert (Ed Bechowsky)—Check soil before your next planting
James, George—Plants and their environment ..... Apr-May '69, p. 32-33; June-July 69, p. 28-29, illus.; Aug-Sept '69, p. 28-30; Dec '69-Jan '70, p. 28-30
SOUTHERN CALIFORNIA EXPOSITION FLOWER SHOW June-July '69, p. 24
Highlights of So. Calif. Exposition ..... Aug-Sept '69, p. 27
SUCCULENTS—AGAVE ..... Dec '69-Jan '70, p. 25-26, illus.
Klinefelter, Mrs. Peter (Nibby)
Succulents—Echeveria Gibbiflora ..... Oct-Nov '69, p. 26-27
Succulents—Elk's Horns. Hereroa Dyeri ..... Aug-Sept '69, p. 14, illus.
Succulents—Jewel Plant. Titanopsis Calcarea ..... Aug-Sept '69, p. 14, illus.
Succulents—Joseph's Coat, Opuntia vulgaris variegata
L. N. Phelps ..... Oct-Nov '69, p. 26, illus.
SWEET PEAS ..... June-July '69, p. 14
Sweet peas with old fashioned fragrance
SWEET PEAS—CULTURE ..... June-July '69, p. 12
Sweet peas (reprint from C.G. 60 years ago)
TABLE DECORATION ..... June-July '69, p. 25-26
Rainford, Alice—Decorating the table
TORREY PINES STATE RESERVE ..... Oct-Nov '69, p. 12-14, illus.
Matula, Arthur—Torrey Pines Extension campaign ..... Dec '69-Jan '70, p. 21, illus.
TRAILER GARDENS see **GARDENS, MOBILE HOMES**
TREES—CONTAINER ..... Aug-Sept '69, p. 15-16
Harris, Richard W.—Root development
TREES—DESERT ..... Dec '69-Jan '70, p. 9-12, illus.
Witham, Helen V.—Trees of the desert are different
TREES—SPECIMEN ..... Aug-Sept '69, p. 17-18
Select large specimens with care
TREES—MOVING ..... Aug-Sept '69, p. 17-18
Legal problems of moving trees
TREES—PLANTING ..... Dec '69-Jan '70, p. 22
Aljibury, F. K.—Planting landscape trees and shrubs
TREES—PRUNING ..... Aug-Spt '69, p. 26
TREES—ROOTS ..... Aug-Sept '69, p. 15-16
Harris, Richard W.—Root development of container trees
TULIPS—Southern California style ..... Aug-Sept '69, p. 17, illus.
200th ANNIVERSARY CELEBRATION see **SAN DIEGO 200th ANNIVERSARY CELEBRATION**
VEGETABLE GARDENING ..... Apr-May '69, p. 9-10, illus.
Garcia, Rosalie F.—Gardening a la salad bowl
WATERFALLS ..... Apr-May '69, p. 6, illus.
Stubbins, Mrs. Frederick—Have a waterfall in your garden
WATERING—James, George ..... Oct-Nov '69, p. 28-30
Irrigation ..... Dec '69-Jan '70, p. 27
WEEDS ..... Apr-May '69, p. 27
Fordyce, Frank—Weeds and orchids
WEEDS—SPURGE ..... Dec '69-Jan '70, p. 21
Pre-emergence herbicide for spurge
WILDFLOWERS ..... Apr-May '69, p. 8, illus.
Witham, Helen V.—Chocolate bells
WILDFLOWERS—DESERT ..... Feb-Mar '69, p. 17-18, illus.
Witham, Helen V.—Into each life some rain must fall

One Day Tour of Kyoto, Japan

Barbara Jones

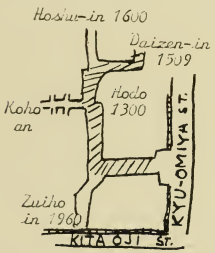
I WORKED OUT THIS ONE-DAY DO-IT-YOURSELF tour of the garden highlights of Kyoto for the use of visitors while I was living in Japan. It has been successfully taken by almost one hundred people who speak no Japanese and who have a limited time to spend in this fascinating city. There are many other gardens and temples, but I chose these as the most important.

#1. **Nijo Castle.** Large rooms. Nightengale floors—sing as you walk on them. Large gardens.

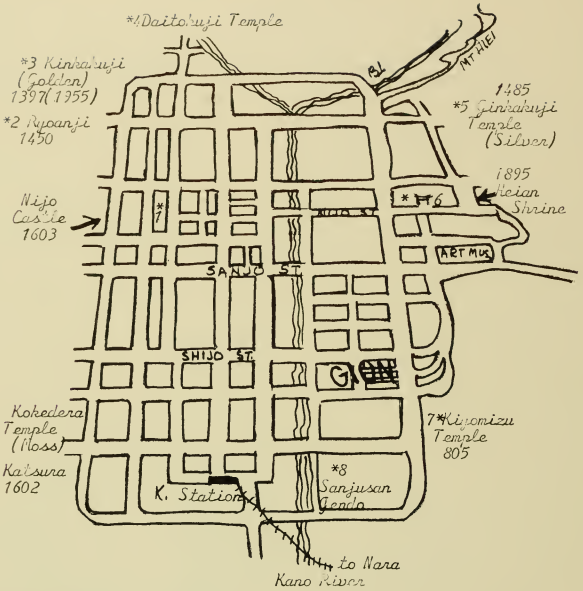
#2. **Ryoanji.** The famous Zen inspired garden of 15 rocks.

#3. **Kinkaku ji.** Golden Pavillion. Built in 1397. Burned and rebuilt in 1955.

#4. **Daitokuji** Temple Complex. A group of Zen temples. Hodo is the head building—famous rooms, screens, garden and kitchen. Daizen famous rock garden. Hoshu-in is a Chinese type garden. Koho-an famous garden. Zuiho is a modern Zen Garden. A good book of these temples can be purchased here.



#5. **Ginkakuji.** Silver Pavilion. First tea room. The pile of gravel in the garden looks like Mt. Fuji by moonlight.



#6. **Heian Shrine.** Go to the left as you enter to a gate where a fee is paid to see the gardens.

#7. **Kiyomizu.** On the side of a mountain which is made of pottery clay. Hundreds of famous potters line the path to the temple.

#8. **Sanjusan** Gendo Temple. 1000 of the most famous carvings.

You can hire a car to drive you, but taxis are always to be found at these temples. At the most one should expect a 5 minute wait for a taxi. If you have more time, see the Moss temple, Kokedera, and the Gion Geisha Quarter. There are many inexpensive guide books of Kyoto, too.

From Kyoto Station (200 Y) to #1 Nijo Castle, (250 Y) to #2 Ryoanji, (90 Y) to #3 Kinkaku-ji, (90 Y) to #4 Daitokuji Complex, (280 Y) to #5 Ginkaku-ji, (110 Y) to #6 Heian Shrine, (90 Y) to #7 Kiyomizu Temple, (90 Y) to #8 Sangen Do and (100 Y) back to Kyoto station. The numbers in the parenthesis are the taxi fares from one place to another based on a 90 Yen basic taxi fare.

Note: If you plan to take pictures, use a very high speed film as some of the areas are quite dark. I suggest high speed film and carry a neutral-density filter for sunlight use.

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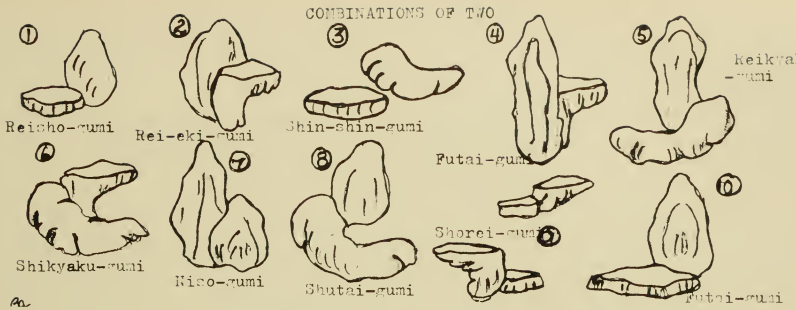
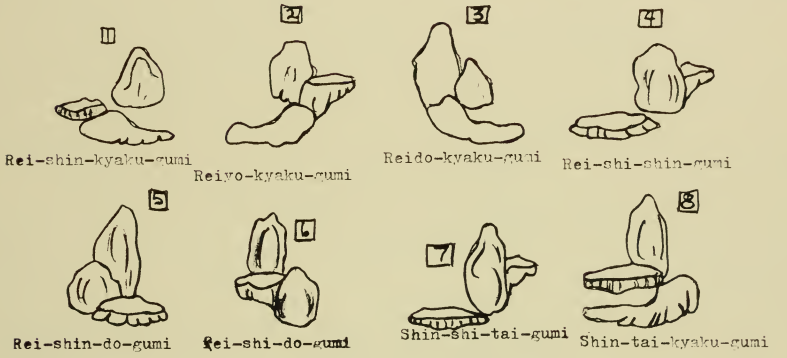




Language of Rocks 2

Number 3 of a series on Japanese Gardens.

Barbara S. Jones

IT IS SAID IN JAPAN that the rock-work tells most clearly the soul of the garden artist. The plantings are secondary in importance.

When one lays out a garden, the stones should be tried one by one to get the best angle. Then it should be checked as a whole before the stones are permanently set in position. Remember, don't lay them on the surface, plant them. Good rock art is never a reproduction of spiritless forms but shows individuality and a quiet design. If you are interpreting a water scene — use rounded rocks; a mountain or rugged seashore — use rocks with distinct verticle planes; a desert scene — use soft colored desert rocks. If you plan to have your garden look cool and woodsy, use only dark and, if possible, moss covered rocks.

Token Azezata in his 18th Century workbook gave examples of good rock combinations which could be practiced by the students. (See California Garden No. 3 V 61, page 26 for the explanation of rock types.) Under the drawings you will note that all of the combinations have been given their Japanese names. Places where he suggested that each combination be used are:

anywhere	(1)	(3)	(8)	[1]	[2]	
water edge		(2)	(4)	(9)		
hill	(2)	(7)	[3]	[4]	[7]	
under trees		(5)	(7)	(10)	[3]	
waterfall		[3]	[6]			
middle island			[6]			

[5] is called the moon-shadow rock. It is a traditional combination which should always been seen beyond a hill.

Very often one will see two *Reisho-seki* (a-guardian stones) on each side of an entrance. These stand for the two Deva Kings, *Sadaimin* and *Udaijin,* often seen before temples and shrines. They are supposed to prevent evil thoughts and deeds from entering.

The design for the use of five rocks is by Token Azetaka, too. Many designers use the rules for *morimonos* of the various flower arrangement schools. In the *morimono* diagram shown, the H (heaven) should be a taller stone, M (man) should be rounded, and E (earth) should be flat and a bit long.

Only in very modern "Mod" gardens in Japan does one ever see stones arranged without plants. Even in the gravel gardens of *Ryoanji* and the *Daitokuji* complex plants are present.

It is more fun to read the combinations as explained in the last article: (1) God watches over people, (2) God causes change, [1] God watches over people and the land, [2] God causes changes in the land, etc.

Never arrange four rocks as this is considered bad luck. There is a very old Japanese saying "If you have seven rocks, use five, but if you use three it will be the best of all." In other words, use restraint!

(Next month: water)

Barbara Jones studied Japanese gardening in Japan for five years. She completed the course on Japanese Garden Design at the Institute of Japanese Art in Tokyo.

Midsummer Gossip about Herbs

Josephine Gray

Burnet (*Sanguisorbs minor*) is a fresh and happy herb which doesn't need much water, so it comes to my mind that it would be pleasant to think about. It is a beautiful ferny little plant which should be grown from seed where it is to grow since it doesn't transplant easily except when very small. The seeds may be sown in fall, early spring or summer, so that all year round it will impart its delicate cucumber flavor to your salads. If finely minced into cream cheese which has been moistened with a little dry white wine, and kept in the refrigerator all night, it makes a delicious spread for brown bread open faced sandwiches. Brewed up into a vinegar it is distinctive. Sow this little plant among your flowers, for unlike many self-sowers it is never obtrusive. Its lacy petticoats cover bare spots in your borders and its pale crimson thimble blossoms will punctuate the poetry of your other flowers.

Now is the time to use foresight as you wander around the garden of a summer morning; second sight against the coming Christmas season when you will be trying to conjure up something to buy for the friend who has everything. There's rosemary to dry for little sleep-bags to slip under a restless pillow, and to use with bergamot and other mints and rose geranium for scented baths. Harvest lemon verbena, lemon balm and southernwood for linen closet pads. If you are a cook you can think of lemon thyme, sweet marjoram and winter savory for beautiful and delectable jellies. And vinegars—the possibilities are almost endless; begin to save attractive bottles, and don't forget to put a sprig of the fresh

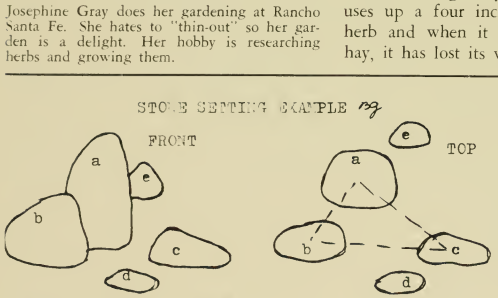
ROSEMARY FOR MEMORY • ROSES, LOVE • RUE, VISION
SAGE FOR HEALTH • VIOLETS, HUMILITY • LAVENDER, LUCK
THYME IS FOR COURAGE • IVY A SYMBOL FOR GOD
MINT FOR CHEERFULNESS • CAMOMILE FOR PATIENCE

herb into the bottle as you cap it. Your friends in the East will appreciate little packets or bottles of dried herbs from your own garden; you can buy those small plastic pill containers from the drug store which are so much more useful and practical than the large bottles advanced at grocery stores. One never uses up a four inch bottle of a single herb and when it begins to smell like hay, it has lost its virtue. As the season progresses I will tell you more of these things and how to do some of them if you don't know, so this is just a sort of advance harvest notice. Tiny leaves of rue, nutmeg and Skies of Italy geranium, sprigs of savory, thyme and marjoram, pressed and dried, to glue lightly to fine note paper make a charming gift. An old telephone book is excellent to use for pressing as it seems to have just the right absorptive quality necessary. The beautiful brown seed heads of rue and the little santolina buttons are attractive in dried arrangements or herb wreaths.

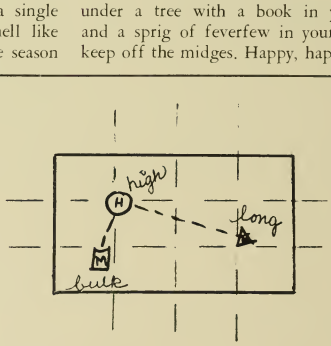
I wonder if you have seen the little "Scent and Savor" herb garden at Whaley House in Old Town which Alice Clark designed and Rosalie Garcia is planting and tending so lovingly? It is still in its kindergarten stage but is healthy and happy and beautiful. Between the little herring-bone brick paths the beds have a fine and interesting variety of herbs, and by this time next year it should be boiling over with fragrant charm. There are mints and sages and a gorgeous stand of tansy among other things, and it's well worthwhile looking at every once in awhile just to see what you might like to add to your own garden, for she keeps making new and fascinating additions.

Somnolent Summer — the time to sit under a tree with a book in your lap and a sprig of feverfew in your hair to keep off the midges. Happy, happy days!

Josephine Gray does her gardening at Rancho Santa Fe. She hates to "thin-out" so her garden is a delight. Her hobby is researching herbs and growing them.



a-Omo-ishi (main stone)
b-Waki-ishi (soe-ishi)
c-Waki-ishi (kyaku-ishi)
d-Mae-ishi (hikae-ishe, fro t stone)
e-Oku-ishi (mikoshi-ishi, looking-over tone)



Morimono

Calendar of Care

George James

Pruning Shrubs, Trees and Vines

THE ART OF PRUNING the shrubs, trees and vines found in the San Diego area garden is a mystery to some gardeners. Experience has shown that the gardener who understands why he prunes and what happens in pruning is able to prune more effectively and with more confidence.

Why Prune

The reasons we prune are: to control the size of the plant, to maintain plant health by removing weak or dead growth, to modify plant shape, and to increase the yields of flowers, fruits and foliage.

Control Size

In foundation plantings, plants often have been planted too close together or have been growing so long that they are crowded and overgrown. For appearance, plant health, and to cause the plant to conform to its allotted space, it must be pruned. Plants are pruned to reduce both height and spread to prevent windows or paths from becoming covered. It may be necessary to regulate the size of plants, even in recent plantings, because one shrub has grown to the point where it is keeping light and air from its weaker companions. If this crowded condition is permitted to remain, the weaker plants will probably die. When such a condition is observed, it is usually wiser to correct it at once, rather than wait some months for a specified pruning date.

There are several reasons we landscape our buildings and one of the most important is to soften the harsh vertical and horizontal line of man-made structures with the pleasant lines of plants. Foundation plantings which are massed and sheared into hedge-like forms tend to accent the harsh lines, while shrubs which are trimmed to retain their natural shapes soften these lines more effectively. There are times and places that shrubs of a formal shape are useful, but this seldom occurs in the foundation planting. In most cases it is desirable to retain the natural shape of the shrub or tree, rather than torture them into geometric shapes by barbering. Shrubs or trees that are allowed to grow in a natural shape will need less attention than those trained into more arbitrary shapes.

Modify Shapes

In some plantings there are shrubs which are intended to stand above the others, somewhat like an exclamation point. Such a plant should be precise in its outline to perform its function well. Not many plants will grow in this manner without a little help from the gardener, so they must be touched up lightly at times to maintain the desired shape.

Prostrate varieties of many shrubs are used as ground cover plants, and when these grow strongly, they may develop growth which stands nearly straight up. If this is allowed to grow unchecked, the planting will become a series of mounds instead of a ground cover planting. Upright shoots may be tied down to a stake if there is room in the planting for another shoot or be cut off just above a side bud that will sprout at the proper height to match the rest of the planting. Some shrubs which may do this are prostrate varieties of *Pyracantha, Carissa, Abelia* and *Coprosma.*

There are some shrubs and trees which develop a compact habit of growth and an attractive shape when they are grown in a soil that is not too rich or where there is only a moderate amount of water. When these are grown in the garden and receive the same care as the rest of the plants, they soon grow too large and become less dense. Often the tops of these shrubs outgrow the roots, and there is danger of them being toppled over by the wind. These need to be pruned to reduce the over-large top and to cause them to grow more compact.

Pruning can create and maintain formal or stylized shrub shapes in the garden. Some of the popular shapes are globes, pyramids, espaliers, poodle-cuts and bonsai forms.

Maintain Plant Health

Broken and dead branches on plants should be cut off as soon as they are seen because they provide an easy entrance for disease which decay the center of the stems and trunk. This precaution is important on large and valuable trees.

Weak and brushy growth often found in the centers of large shrubs, in the heads of trees and in the interior growth of vines should be removed as part of the pruning routine. This growth provides a place where disease and insect problems can start. Once the poor growth is removed, there is better penetration of both light and air which will discourage the pests and encourage new growth. This weak growth is of little value because the leaves, flowers or fruit it will grow will not be the best. Removal of the growth allows better penetration of spray materials, too.

Improve Quality

Ornamental plants produce foliage, flowers and sometime fruit which enhance the appearance of our gardens. Soil, weather, water and fertilizer have a very great bearing upon these plants, but in many cases, intelligent pruning must be added to these if superior results are to be had. The best quality of foliage, flowers and fruit are grown on the newest and most vigorous shoots, and when we prune, we remove some of the older wood and leave the newer plus providing room for additional new shoots to be grown. Thus the cycle of producing wood for leaves, flowers or fruit is constantly being maintained with only the most effective growth being retained. This new growth may occur as a new shoot developing from a side bud on a stem or as an addition by elongation of the wood which flowered the year past. Elongations will cause a plant to become both taller and wider until it out-grows the space allocated for it. When this occurs, the top of the shrub grows wider than the base. This may result in a shadow being cast on the bottom part of the plant which will reduce or eliminate flower production in that area. If the shade is dense, the lower leaves will be shed by the plant.

Hibiscus shrubs *(Hibiscus rosa-sinen-*

George James, Garden Care feature writer, is an experienced horticulturalist and gardening teacher. He studied under his father, a nurseryman, and at U.C. at Davis. He has lived in the San Diego area since 1913 and is well versed in our local gardening situation.

sp.) and Bougainvillea vines are two plants which flower on new growth. These and other plants which flower on new growth are best pruned in the spring before growth starts. They are pruned by cutting off the ends of the longer shoots, reducing the plants to a height and spread which is suitable for the area they are to occupy. Weak, thin or poor shoots should be pruned to remove them at the same time allowing light and warmth to reach the interior of the plant to stimulate the development of new shoots from side buds on the stronger growth which remains. It will not hurt Hibiscus or other plants which produce their flowers on new growth to be pruned in the summer. Such pruning does remove growth which would flower before the season is over.

Plants which produce flowers or fruit on one year old growth can and do produce some flowers and fruit on wood that is older than one year. The one year old wood is preferred because it yields more abundantly. The much used Pyracantha *(Pyracantha crenulata* and its sports) is a good example of such a plant. Pyracanthas are usually best pruned in the spring after the berry crop has become unattractive or has been eaten by the birds. They are pruned by cutting out, as far as is possible, the branches and twigs which bore the berries, leaving the new shoots to produce the crop next season. These newer shoots may be cut back part way if they extend too far in any direction. When Pyracantha becomes overgrown it may be cut down to two or four main branches which are three or less feet in height without permanent damage to the plant. When trimmed as severely as this, the Pyracantha will not have a crop of berries the year following because the fruit bearing wood has been cut off.

Flowering varieties of peach trees and those varieties which bear edible fruit in addition to attractive flowers, are pruned in the same manner as the pyracantha — by cutting out the growth which has produced flowers in the spring after flowering is completed and before new growth starts. When pruned at this time the complete crop of flowers is enjoyed and the tree is not damaged. Flowering peaches which do not produce fruit of an edible quality can have nearly all the wood which flowered removed. They will develop new growth during the summer which will bear the blossoms the next year. When they are cut back this severely, a great part of the crop of worthless fruit they produce is eliminated. Flowering varieties which bear fruit of an edible quality cannot be pruned as severely. Some of the flowering branches must be left if a crop is to mature. Flowering plums and apricots can be pruned after flowering in the same manner as the flowering peaches.

Deciduous Shrubs

Shrubs which loose all their leaves in the Winter are not as popular here as in many areas because we seem to prefer shrubs which are evergreen, or nearly so. It is difficult to find shrubs which have the quantity of flowers that these do and which are so typical of Spring. Some of the deciduous flowering shrubs which grow satisfactorily in our gardens are Bridal Wreath *(Spiraea vanhoute)*, Mock Orange *(Philadlphus sp.)*, Weigela *(Weigela florida)* and Flowering Almond *(Prunus tenella)*. These shrubs and others of similar flowering habits have their flowers on shoots or stems which are grown the summer before. They are pruned after they have flowered by cutting out the oldest growth to make way for the development of new, vigorous shoots.

Hydrangea macrophylla, the common, nearly evergreen variety of Hydrangea, has different needs. It produces its flowers from terminal buds at the tips of the stems. The usual pruning practice is to prune when the flowers have faded by cutting the flowered stem to a point where there is a strong side bud. A new shoot will issue from this bud and it will have a flower at its tip in eight to twelve months. Hydrangeas may be cut back to the ground in the spring when they become woody. A complete new top will be grown, but there will be no flowers for about a year after the cutting back.

Pruning for Foliage

Foliage or leaves may be considered the crop of some shrubs and trees, and older plants can be helped to develop fresh, attractive foliage by cutting out weak growth which would not produce attractive leaves. Thin twigs and shoots and old stems and branches are less likely to have good leaves. These can be cut out during the spring or early summer and new, vigorous shoots will appear, increasing the attractive quality of the plant.

The quality of the foliage on hedges and shrubs which are trimmed into formal shapes is important. In addition to an adequate supply of water and nutrients, new leaves and shoots are encouraged on these plants by frequent light shearings.

Sunlight is necessary for leaf development and hedges which do not receive a half-day of sunlight at their base will develop and maintain better foliage if the hedge is trimmed slightly narrower at the top than the bottom. This allows more light and warmth to reach the growth at the base of the hedge. Hedges which are oriented so they receive a half day or more of direct sun at the base can be trimmed so the top is the same width as the base. Hedges and formal shrubs need to be sheared frequently enough to prevent the growth of long shoots which will shade leaves close to them. The frequency of clipping will depend upon the season of the year. The last clipping of the year should be given to these plants before the weather becomes so cold that new growth cannot develop. New leaves need time to appear and cover the stubs left by the pruning so the plant will look more attractive all through the winter and early spring months.

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Dahlias

Larry Sisk
San Diego County
Dahlia Society

DAHLIA DIGGIN'S

Dahlia seed will keep for an average of about five years.

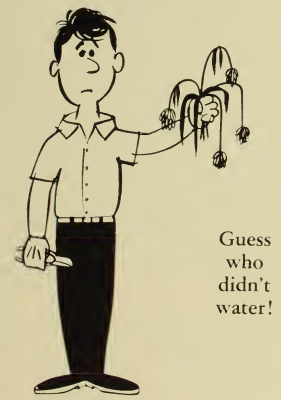
Dahlia seed from the average garden have a viability (potential germination) of about 70 per cent.

Planted two feet apart in rows 40 inches apart, 5500 dahlia plants would be required to fill one acre.

By planting dahlia seedlings close together—about a foot or so apart—the plants will provide some support for each other, but some staking with twine or wire from stake to stake will insure against crawling of the plants.

To clean dahlia seed, R. Paul Comstock, the hybridizer, uses a portable blower (hair dryer) to blow away the chaf and lets the seed drop through a series of screens with graduated-size mesh.

When dahlia tubers start to push their sprouts through the soil and when setting out plants, sprinkle the surrounding ground with chlordane to discourage cutworms.



Cactus

L. N. Phelps, Ph.D.
San Diego Cactus & Succulent Society

Easter Cactus

Schumbergera russelliana.

The Easter cactus is so named because it will bloom in the spring of the year near the Easter season. *Schlumbergera russelliana* (shlum-ber-ger-ah rus-sell-e-ah-na) and *S. gaertneri* (gert-ner-i) both have the same common name, and they are the only species in the genus. The genus was named by Lemaire in 1858 for an amateur garderner, Frederick Schlumberger, who collected cacti, begonias and bromeliads. The first species was named by Gardner in 1839 for the Duke of Bedford who supported Gardner's collecting trips. The species was first classified as a *Cereus*, then *Epiphyllum*, then finally the current name was given. The second species was described by Regel in 1884 as an *Epiphyllum*, and was finally given a place in the present genus by Britton and Rose in 1913. It was named for Gaertner, a plant collector.

S. russelliana is a small plant from eastern Brazil. The joints are rarely over an inch long and barely half as wide. They are usually oval with flat sides, but they may be three or four sided and nearly square in cross-section. The plants are usually thickly clumped and mostly upright with some drooping stems. There are usually one or two notches on each edge of the joint, possibly with one or two small bristle-like spines in the areoles at the notches. The stems blush a bright red in weak sunlight over the normal pale green. The flowers always come out the areoles at the tips of the stems, but the side areoles may give rise to new stems.

S. gaertneri is a much larger plant, also from eastern Brazil, which looks very much like the Christmas cactus, *Zygocactus truncatus*. This cactus, like the first species, is quite upright in its growth habit, but some stems may droop. There are many bristles from the tip areoles in *S. gaertneri*. The joints may be over 2 inches long and an inch wide, with several notches. The areoles at the notches usually have some white wool and several bristles. Some varieties of the cactus have large tufts of bristles up to 3/4 inch long. The joints may blush purple in weak sunlight.

Both species of *Schlumbergera* bloom profusely in spring, *S. russelliana* with pink to light reddish-purple flowers about one inch in diameter and *S. gaertneri* with scarlet flowers up to two inches wide. The flowers in both are regular and have pointed petals, giving the appearance of spokes of a wheel. Both species may have several flowers from the end joint of each branch.

These cacti like the same conditions as the Christmas cactus; loose, rich soil (50% humus) and perfect drainage. They may be grafted onto various stocks, but these plants do so well on their own roots in Southern California that they are rarely grafted here. They should have at least 25% sun, but over 50% would be excessive. The plants are frost tender, but otherwise do very well in our climate. I have never kept one in the house yearround, so I don't know if there is a chilling requirement for blooming as there is with the Christmas cactus. Cuttings of these plants are easily rooted in sand or potting mix if the cuttings are allowed to dry for several days before planting.

The spring blooming time, regular flowers and upright growth of the Easter cacti are enough differences, in my opinion, to maintain *Schlumbergera* and *Zygocactus* as distinct genera even though the two general are very similiar.

Leroy Phelps is an Associate Professor of Microbiology at San Diego State who has been a cactus hobbyist for the past fifteen years.

Succulents

Nibby Klinefelter

San Diego Cactus & Succulent Society

Collectors, the time has come to conserve — to band together to beat the bulldozers. Conservationists, let's go collecting in Tecelote Canyon!

A subdivision has been opposed on grounds that the canyon should be preserved as open space.

Before it is a reality let us try to save the succulents growing there now, practically undisturbed since Balboa blew by. The law requires written permission of the owner to dig native plants. One must get written permission from the subdivider to rescue what we can before the terrorizing of terracing begins on Tecelote. This bit of open space lies above Mission Bay in the Clairemont bluffs. What grows there in addition to *Dudleya attenuata?* I recall dodging chollas as we spotted the buttery blooms of *Mammillaria dioica,* as well as the Spring-reddening spines of a small-bodied ferocactus with a tendency to cluster. There is what appears to be a miniature variety of *Dudleya attenuata* and a number of other plants to excite wildflower lovers.

The endangered plant is rosette in form, growing approximately to a foot across and nine inches high. The pencil-like leaves which measure 6-7", are one quarter of an inch or so in diameter and taper to a point (hence *attenuata* which means narrowing to a point). These cylindrical leaves are smooth and gray-green, contrasting actively with other foliage in a rock garden. It increases by crown division and can readily be separated. Take care handling, however, for the succulence of the leaves allows such tender crispness that they break easily. Flowering in April on straggly branching stalks, pale yellow slightly pinkish blossoms continue to look as if they will open tomorrow until the day they go to seed.

Named after Prof. Bill Dudley, a systematic botanist of the original faculty of Stanford University, the *Dudleyas* are all native to California and Baja with the few exceptions found in Arizona. The 80 species belong to the *Crassulaceae* family along with the closely related *Echeverias.* The resemblance between these two genera is so strong that the *Dudleyas* were formerly considered *Echeverias.* In fact, there are intergeneric hybrids around named "Dudleveria." One difference is that *Echeverias* drop their leaves but those of the Dudleyas cling stubbornly long after they're dead.

Herewith, to quote one of my favorite writers: "All around the county from among the rocks, from under shrubs and from steep inclines, long fleshy powdering grey-white flower stalks are arching their way toward the sun. April is *Dudleya* month. On the hill sides of Mt. Helix to the coastal cliffs of Santa Barbara, large rosettes of *D. pulverulenta* contrast the native flora; on the bluffs overlooking San Diego and Mission Bay, the silvery fingers *D. attenuata* clutch every ray of sunlight; along the back country roadways of San Diego's north county, *D. lanceolata* crowds close in the rocks of the cutbacks; and near Palm Springs, *D. saxosa* opens fully to accept the Spring under the motherly protection of desert chaparral. But none has the outright brazen beauty of *Dudleya brittonii* which carpets the cliff sides on the old road from Tijuana to Ensenada. It is as if the "Great Flower Child in the Sky" were caught up in a psychedelic desire to create a gigantic anaglyphic engraving of alabastrine rosettes."

D. pulverulenta is very aptly named. PUL-ver-oo-LEN-ta means covered with a fine powder. It has commonly been called "chalk lettuce" and "California powder rose." It flowers from May to July with red blooms half an inch long and can reach 18" across, a thrilling sight to spot along the coast on rocky cliffs and canyons from San Luis Obispo south.

W. R. SCOTT

D. farinosa (meaning mealy, powdery) is another species heavily coated and has many clusters. Look for its yellow flowers around the Monterey area. *D. brittonii* is the best known in cultivation with 18" wide leaf rosettes on stems that gradually lengthen into trunks. Its fleshy leaves, too, are covered with a chalky powder which can be rubbed off — very striking when well grown. Several authorities feel that *Dudleyas* grow better in pots. Certainly in nature they seem to enjoy squeezing their roots in among rocks. Shall we go captivating before we start cultivating? ON TO TECELOTE!

Nibby Klinefelter has been growing succulents as a hobby for twelve years. She says they are fascinating plants of a tremendous number of varieties and easy to care for in her spare time.

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Orchids

Duane "Bud" Close
San Diego County Orchid Society

WITH THE ADVENT OF the warmest months of summer—August, September, and early fall in Southern California—make sure your orchids are as comfortable as possible. Increase the humidity if possible, as this seems to alleviate the effects of heat on the plants. Be sure your shade is correct for the different genera. Most plants, including orchids, grow well at temperatures up to ninety degrees, but may not do well when the temperatures exceed this level unless the corresponding humidity is also increased.

Seedling orchids of all genera respond to the extra warmth of summer and can use extra water and feed. We are often surprised at how fast these young plants can grow when they are given the optimum conditions.

Late summer and early fall blooming Cattleyas grow very rapidly, so be sure they get enough water. Later on in the year they require less water than later flowering plants because their total year's growth is complete in three to four months. This is especially true of the following species (or hybrids of them): *Cattleya granulosa, C. guttata, C. gigas, C. harrisoniae, C. bicolor,* etc. These need a decided rest in the fall and early winter.

Your potting program for *Cattleyas* should be complete except for seedlings. If potting of any plants have to be postponed, make those the seedlings as they are generally more vigorous and recover faster than the mature plants. Again, you are reminded to place newly potted plants in a more shaded area for a month or so until new roots develop; then place them in the proper area. I have had excellent results with mature plants of all types, but especially Cattleyas when they are placed on the seedling bench after potting. Here they receive a fine fog spray twice daily from automatic sprinklers. This seems to provide quick recovery with a minimum of pseudo bulb shrinkage.

Cypripediums and *Paphiopedilums* like frequent heavy watering and should never be allowed to dry out. More shade for these plants than for most orchids is a must. Cyps look more delicate than many other orchid genera, but surprisingly, they can recover better than most when repotting and dividing is necessary. So don't put off repotting, especially if plants are over-crowded.

Cymbidiums need all the light they can get, but don't burn the foliage. Repotting should still be done if necessary. Most commerical growers of this genus keep potting in late July and August if plants need repotting. Spider mites or "red spiders" as they are commonly called, are the worst pest of this plant, so apply insecticides regularly. These pests multiply four times as rapidly in the summer heat as in the winter. Syringing the plants on the undersides of the leaves with a strong force of water helps reduce the concentrations of this pest and can be done each week if necessary. Red spider infection on the Cymbid leaves usually gives the appearance of a yellow mottled effect. If you see this, pull the leaf between your thumb and index finger, looking for small red streaks for further evidence of infection. Also, a small 10-power hand lens will help you observe them—especially on the lower sides of the leaves.

Vandas and *Dendrobiums* need good light and lots of feed and water.

Phalaenopsis need the additional water and feed, but less light than *Vandas* or *Dendrobiums*.

Duane "Bud" Close is the chairman of the Science Department at Grossmont High School. He has been growing orchids in San Diego for 23 years.

Fuchsias may be grown as shrubs. Below is a list of some good varieties. The mere presence of these aristocrats add dignity, charm and colorful animation to any garden.

1.	Checkerboard	up to 15 feet
2.	Mephisto	15 feet
3.	Sleigh Bells	4 feet
4.	Cardinal	12 feet
5.	Display	3 feet
6.	Rubeo	6 feet
7.	Dollar Princes	2 feet
8.	Esparanza	5 feet
9.	Jamboree	3 feet
10.	Hollydale	4 feet
11.	Nonpariel	5 feet
12.	Arboresens*	6 feet

*A Mexican species that blooms in clusters and looks like a small lilac.

Fuchsias

James Watson
President, San Diego Fuchsia Society

THE FOUR MOST COMMON questions about fuchsia culture are:

1. What can I use to spray my fuchsias?
2. Why are the leaves yellow?
3. Why does my soil pack so hard?
4. How often should I feed my fuchsias?

SPRAYING FOR INSECTS:

Each plant should be sprayed systematically and thoroughly. Most of the spraying should be done with the nozzle directed upward, so that the undersides of the leaves will be covered. Use 50% Malathion or a Multi-Purpose insecticide.

LEAF YELLOWING:

Most of this is caused by poor watering or incorrect light exposure for the plant. It can be caused by diseases and feeding. Chelated minerals may be applied at any time during the growing season.

SOIL:

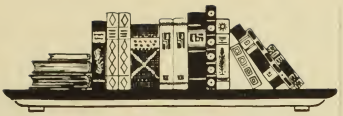
A good hole must be dug. Provisions must be made for artificial drainage, particularly if the plant is placed where it will be subjected to heavy watering or in soil that is moisture retentive. Fill the hole with a mixture of soil and wet peat moss, leaf mold or other vegetative material. Use mulches to prevent soil from drying out, such as peat moss, leaf mold, redwood bark, straw, pine needles, etc. Cover the surface with a mulch to a depth slightly less than 1/2 inch.

FEEDING:

Every ten days give fuchsias a complete liquid fertilizer of 20-10-10 (after the plants show the first signs of budding). Change to a fish emulsion of 4-10-8 as plants go into full bloom. Change to 0-10-10 before the winter months to harden the plants.

To learn how to grow fuchsias better, attend the meetings of the San Diego Fuchsia Society. See the club directory on page 31 for time and place.

Jim Watson is President of the San Diego Fuchsia Society. He is a nurseryman who has been growing Fuchsias for a hobby for many years.



THE BOOK SHELF

Shakespeare's Flowers. Jessica Kerr. Illustrated by Anne Aphelia Dowden. Thomas Y. Crowell Co. 1969. $5.95.

"Here's flowers for you;
Hot lavender, mints, savory,
marjoram."
—The Winter's Tale

Even if you haven't read Shakespeare since you left school, you can't forget the flowers mentioned in his plays.

"I know a bank where the wild
thyme blows,
Where oxlips and the nodding
violet grows
Quite over-canopied with luscious
woodbine,
With sweet musk-roses and with
eglantine."
—A Midsummer Night's Dream

All the flowers are here in this book, from Ophelia's fantastic garlands of crowflowers, nettles, and daisies to Perdita's "daffodils, that come before the swallow dares and take the winds of March with beauty." They are written about with charm and illustrated beautifully.

There is a bibliography and an index of plants and plays and poems referred to.

It is a lovely book—one to give to a special friend or to give as a special gift to yourself.

Reviewed by Doris Blick

PESTICIDE DISPOSAL. County Agricultural Commissioner, J. W. Moon, states that to avoid further pollution of our environment, DDT and other pesticides must be disposed of in a safe manner. Under no circumstances should the pesticides or empty containers be placed in the regular trash or the non-chemical public dump. Unwanted stocks can be left at one of the S.D. Dept. of Agriculture offices, taken to the County Chemical Dump, or poured into a hole in the ground and covered with dirt to a depth of at least 18 inches. BJ

Iris

Sanford Roberts
Member, San Diego-Imperial
Counties Iris Society

MOST GARDENERS are familiar with the tall bearded irises, but many have never seen spurias. The tall bearded irises have been in domestication for centuries, while the spurias have been derived during the last century from a wild species that grows in the Mediterranean area. The Mediterranean climate can be favorably compared to Southern California and spurias are ideal in this homeland clime.

Do not think that tall beardeds and spurias are alike—spurias are true iris, but there the similarity ends. Spurias grow up to 5 feet or more and they are tougher than the tall beardeds. They can be obtained in many of the color ranges available in the tall beardeds. Spurias are best described as being an overgrown Dutch iris in size and flower. They are one of the best irises for cut flowers and one of the best perennials for landscape plantings. They are totally unobtrusive in the garden and landscape scene when dormant. Yet, from the beginning of their early Fall growth cycle to late June (or their return to dormancy) they are a rewarding investment in garden space because of ease of culture. They are practically disease-free care.

When foliage and bloom stalks begin to turn brown in July and August, these should be cut down to ground level. In fact, after the bloom season is completed, their return to dormancy begins. This is usually in June—a time when gardeners tend to lose interest in a plant. This is the carefree time for the spuria and the gardener's time and energy can be spent on other plants—or on relaxing with the advent of the hot summer days.

During the last decade, spurias have increased in popularity more than any other type of iris. The Spuria Iris Society section of the American Iris Society continues to be the fastest growing Sectional Society of the AIS.

Spurias may be planted from August until about mid-November. Earlier planting than August 15 in Southern California should be avoided. Rhizomes are usually available in September from local iris gardens and growers. These rhizomes resemble small sweet potatoes and should be planted promptly after receipt from mail-order sources or local growers. The rhizome should be buried in a horizontal position with a covering of two inches of rich soil. The planting site should be a rich garden spot in full sunlight. The rhizome will begin sprouting in late fall and the plant, with stiff and erect leaves, is a dividend to the garden. The growth and spring bloom of the plant is directly affected by the amount of water received at this time. Each plant should be watered generously from the time the young shoots appear above the soil surface until completion of flowering in the spring. Most any type of fertilizer is beneficial. In the spring when the flowerstalks appear and buds are nearly open, the plants should receive a dusting of chlordane around their base to halt the seemingly armies of ants that appear in pursuit of blossom nectar. Take time to enjoy their exotic blossoms, cut and arrange those lovely flowers and use a single bloom as a grand substitute for an orchid in corsage making.

In any writing devoted to spuria irises, Mr. Walker Ferguson of Escondido, California must be mentioned. Mr. Ferguson is the undisputed dean of modern day spuria breeders and hybridizers. He is a three-time winner of the Eric Nies award for spuria hybridizing from the American Iris Society. He is about 80 years young, a witty and charming gentleman. A visit to the garden of this distinguished hybridizer of spurias is a rewarding experience.

Sanford Roberts is a hobbyist who cares for 3,000 iris rhizomes in his three acre yard. He is well qualified to advise the new grower on his iris.

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Roses

George James

ROSES WILL PRODUCE MORE FLOWERS and foliage of better quality and size if the bushes are adequately fertilized. Rose bushes may be first fertilized when new growth appears soon after they are pruned in the spring. At this time the growth is starting and the plant can make good use of the nutrients supplied by the fertilizer. New shoots from the base of the bush can be stimulated to develop when the base is not shaded by the top growth. The new shoots which develop from the base of the bush will have grown into strong canes by pruning time next year and can replace older canes which can be pruned out. A fertilization program for roses should be developed which will enable the plant to maintain an almost continuous crop of new shoots, most of which will terminate in a flower or flowers, depending upon the variety. The use of a dry commercial fertilizer at intervals of from three to six weeks (the frequency being determined by soil and other factors) will come close to keeping the rose bush in constant flower production.

Major fertilizer manufacturers make a special fertilizer for roses, most of which have the words Rose Food in the name. They contain the three major plant food elements. Nitrogen-Phosphorous-Potash, in the correct ration to produce reasonable growth or new shoots and good quality flowers. Also, these fertilizers contain several micro-nutrients which experience has shown rose bushes are likely to need for a complete diet.

It is wise to be guided by the instructions on each package for the amount to use per plant at each application, as the contents of each brand of Rose Food may have differing food values. It is safer to space the applications of fertilizer closer together than to increase the size of the application.

Rose Food is an excellent fertilizer for use on annual and perenial flowering plants, too, as it is balanced to produce both growth and flowers. It may be used to feed shrubs at times when both growth and flowers are desired.

Camellias

George James

CAMELLIA SHRUBS have special fertilizer requirements, and fertilizers formulated to meet these needs usually have the word Camellia included in the name or it may be called Acid Food. Beside the three major plant food elements, NPK, camellias may need certain of the micro-elements. They need a fertilizer which creates an acid condition in the soil, or, at least, does not make the soil alkaline. The materials used to supply the food elements should be of a slow acting nature, which reduces the danger of damaging the surface roots. Both dry and liquid Camellia foods are available. The dry material will supply food to the plant over a longer period of time than liquid and can be applied less often. The liquid forms are considered more desirable for camellias which are growing in containers. The advantage is that the liquid material can easily penetrate into the soil and will leave no residue on the surface. A residue may become covered with mold and a musty odor will be released. There is no valid reason why liquid Camellia Food cannot be used on plants in the ground, except that more frequent applications may be wise.

Packages of Camellia Food, both dry and liquid, have on their labels directions for the amount to use for different size plants. These directions should be considered as maximum amounts and applications which need to be made. There are conditions where less frequent applications may be wise.

Camellias can be safely fertilized from the time they finish flowering in the spring until August or early September. Dry camellia food can be applied about once a month. Feeding before flowering finishes can start growth and the last buds may not open; while feeding past the early September date can keep the plant growing too long and buds will not open until growth stops.

It is usual to plant camellias, in the ground or in containers, in a soil that contains close to 50% organic matter. This soil will be porous and drain well and have a neutral or acid reaction. For the first few years after planting, the organic material will supply some plant food as it decays. Camellias planted in such soil may not need to be fed every month as has been indicated. When the food from the organic matter is used up, then the monthly feedings between Spring and September will be needed.

The results of a season's fertilization can be evaluated at the end of the season by observing how much growth the plant has made. Mature plants should make three to six inches of growth a year when properly fed. If much more growth than this is made, the amount of fertilizer used the following year can be reduced. Plants which fail to make the desired growth can receive a larger ration of fertilizer the following year, but do not increase the amount per feeding above the quantity recommended in the instructions on the package. It is safer to increase the number of applications, making them at intervals slightly less than a month apart, if necessary, to supply the desired amount of food. It is easy to tell how much growth a camellia made the past season for there is a slight swelling in the stem where the terminal bud was the year before, and all growth on the stem from the uppermost swelling to the existing terminal bud is that which was made in the past season.

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Preparing Driftwood

Ann Bowen

FIND SOME INTERESTING DRIFTWOOD this summer? Like to know how to "finish" it? Well—

Driftwood is found in ocean or sea washes and on beaches. Lovely pieces can also be found in inland areas where rivers formerly ran. Sometimes one will see pieces or roots or manzanita branches called "driftwood," but these are not true driftwood.

Real driftwood usually has a sticky-sandy residue covering which is difficult to remove. First try brushing it "real hard" with a wire brush. It this doesn't work, then wash it with an oxalic acid solution (1 tablespoon to 2 cups of water). This will cleanse without changing the color. Be sure to wear rubber gloves. Let the piece dry, preferably in the sun.

Your lovely piece of wood could be full of bugs and termites, so this had better be taken care of before you bring it into the house. (I use 50% Chlordane, undiluted, in a hypodermic syringe with the longest needle I can get on my wood.) "Shoot" the wood all over with the needle and give it extra shots in soft places. Let the wood dry for several days, and do it all over again. The wood will then last for years. (I have pieces that are over 35 years old and are still in beautiful condition.)

If you desire to change the color, use a wood stain which will color without hiding the natural wood grain.

To finish the wood and provide a satiny sheen without a shine, use a neutral shoe polish. This will enhance the wood and prevent it from discoloring if water is accidentally dropped on it.

No matter how many pieces of driftwood one may have, the finding of a new and interesting piece is a special thrill for anyone who loves the natural beauty of our land.

Ann Bowen is well known by arrangers for her beautiful driftwood. Every time she comes home from the desert her car is loaded with beautiful pieces. She shares her secrets for preparing it with us.

Tips on Preparing Dried Plant Material

Virginia M. Innis

AUGUST OR SEPTEMBER is a good time to collect grasses, weeds, reeds and foliage for dry arrangements. (Many of these materials may have dried naturally by this time.) Different colors may be achieved from the same plant material by varying the drying process. Material picked green and allowed to dry-out in water frequently has a different color from the same material which has dried-out naturally. Material which is cut at different times in the plants maturity frequently will have various color differences.

To achieve still another change in texture as well as color, many flower arrangers **glycerinize** the material. Glycerine is sold at most drug stores; **one third glycerine is added to water in which plants will be allowed to dry-out.** In extremely warm weather some plant material will dry-out in a few days, in foggy or damp weather it may take a longer time. Sometimes different colors are effected by placing the plant material in a dark closet while the glycerinizing is occurring.

I have had small success in adding food coloring to the water and glycerine and submerging plant material in the solution. It is an expensive and messy process and colors are not predictable. However, a few delights have resulted.

Glycerinizing makes dry material soft and generally supple. These materials last four or five times longer than naturally dried plant material which is brittle and suffers damage when in contact.

Virginia Innis has won many a blue ribbon for her arrangements with dried materials. Here she tells us how she prepares her beautiful material.

Try spraying cattails and other fluffy materials with hair spray to keep them intact. BJ

Ikebana

IKEBANA (flower arranging) in Japan is considered one of the refined arts. It rarely stands alone, but is part of a complete picture which often includes an example of brushwork and an art object.

One does not spontaneously become an ikebana artist. There are many schools of Ikebana in Japan; some dating back many centuries. Some schools teach classical styles, some modern and some both. Depending upon the school, it takes from 1 to 15 years to obtain a teacher's certificate (equivalent of graduation). One may study for higher degrees. Often the master's degree is awarded after many years of teaching, studying and outstanding contributions to art education; but I have known in some of the modern schools where the master's degree has been awarded in two years for outstanding work and contributions. Each school is headed by a a headmaster (*Imoto*), and only an *Imoto* can award degrees or certificates. When one "graduates" he is not expected to continue through life doing the arrangements of the school, but uses the lessons as a basis for creating original design. (A teaching Teacher must faithfully follow the school designs, though.)

Unfortunately, many dedicated floral artists have attempted to study ikebana in Japan and because of a language barrier and a lack of knowledge of "the school system" have been taught by unqualified people. The most unfortunate part is that some of these sincere, honest and extremely talented individuals have written books on the subject. Even though the books are delightful, erroneous ideas are presented. So—if you are sincerely interested in this art, be careful to check the credentials of the instructor. And, if you are in a Foreign country and desire to study this or any other art, contact the Public Affairs or Information Officer of the Local American Embassy for a list or a place to go to find a list of recognized qualified schools or teachers. They cannot and will not recommend any one school or teacher, you alone must make your free choice of which one you desire.

Tokonoma (alcove) with kakemono (hanging scroll) and a Seika style ikebana (flower arrangement).

Cypress Knees from Florida and the Gulf Coast. A form of driftwood found in that area.

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Let's Go Down to the Seashore

Helen Witham

PLANTS LIVE IN COMMUNITIES, just as people do, and their total environment determines their way of life. Plants of the seashore have found how to live with salt spray, winds, blown sand, fogs, and saline soils, alone or in varying combinations.

The Plant Communities (an aggregation of living organisms having mutual relationships among themselves and to their environment) of the seashore are these two: the Strand Community (dunes and upper beaches) and the Salt Marsh Community. Each has its characteristic plants which are found associated together up and down the coast. Along with the plants are the animals: the birds, insects, fishes, reptiles, and mammals; all finding their food supply in the plant world, either directly or indirectly —some eat the plants and the others eat them.

As you walk along the beach you will find heaps of drying plants washed up from the sea. These are not the shore plants of the communities mentioned above, but are mainly marine algae, known variously as seaweed, kelp or sea wrack. These non-flowering plants lead a life which cannot be tolerated by land plants. Some grow completely or partially submerged, others are periodically exposed by ebbing tides. Their colors and shapes look strange to us; they are red, brown, orange; they have bubbles, floats, fringes, or tassels; some resemble tangled fishline or green string. These plants can't grow anywhere else than in ocean water.

In the Salt Marsh Community, where most of the plants "have their feet in salt or brackish water," the flowering plants of the intertidal mud flats and edges of the estuaries are often great in number but extremely limited in variety. Generally speaking, they are low or prostrate; quite often they are succulent, an ill-understood adaptation to their special environment. One of the most common is *Salicornia,* called "Pickleweed" because its jointed fleshy stems resemble tiny pickles strung together, or "Glasswort," because of the translucent appearance of the joints. Others are: "Sea Blite" (*Suaeda*) "Alkali Heath" (*Frankenia*) with small pink flowers and small oval grayish leaves; and the two grasses *Distichlis* and *Spartina.* Growing among these uniformly small-leaved or grassy plants is one which stands out because of its large broad leaves and relatively tall flower spikes. This is "Sea Lavender" or "Marsh-Rosemary" (*Limonium*).

The upper beach and dune plants are a different set of "people," which "don't associate with the marsh plants." This is no snobbery—they just can't grow in the marsh, any more than the marsh plants can grow on the dunes.

That these are beach or dune plants is indicated by some of their colloquial names: Beach Sand Verbena, Sandhill Sage, Saltbush, Seascale, Beach Morning Glory, Dune Primrose. Others are Lupines, Ice Plants, and even a Sand Strawberry. All of these are relatives of plants which grow under many other conditions of soil, water and climate, but these are the few or only species of their genera that can grow under the conditions peculiar to their seashore locations. They are the "indicator plants"; which simply means that when you find them growing in their natural state you know you are near the shore.

And now, happy shoreline exploring!

The above named plants are illustrated and described in P. A. Munz's inexpensive paperback book about shore plants.

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12214 Lomica Dr. San Diego 92128
(Rancho Bernardo) 487-2987

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First Friday, Conference Room, Public Library 1:30 p.m.
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Third Wednesday, Chula Vista Woman's Club, 357 "G" St., 1:00 p.m.
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515 Second Ave., Chula Vista 92010

CITY BEAUTIFUL OF SAN DIEGO
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Fourth Thursday, Red Cross Bldg. 1113 Adella Lane, 9:00 a.m.
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Meets 2nd Tuesday, Alt. Pauma Valley and Valley Center 1:30 p.m.
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14767 Fruitvale Rd. Valley Center 92082

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368 Alborado Dr. Escondido 92025

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Last Thursday, Fallbrook Woman's Clubhouse, 1:30 p.m.
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(Garden Section)
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6372 Lake Levon, San Diego 92119

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Pres.: Mrs. Mary Hofmann
2327 33rd Street, San Diego 92104 284-4449

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—Buy soft drinks and milk in returnable bottles, if possible.

—Don't accept any more paper bags. Take bags or boxes with you to the store.

—Buy products that can be reused many times.

—Buy fewer, more durable toys—avoid plastic. Give old toys to an agency to distribute to others.

—Don't waste a piece of paper—use blank sides for scratch paper.

—Instead of buying prepared, packaged and canned foods buy fresh. It is more healthful anyway.

—Put all your food leftovers, peelings and yard trimmings in a compost pile to be used as a rich mulch in your yard.

—Return junk mail to sender or post office.

—Use non-polluting cleaning products.

—Don't buy a new car until the automobile industry comes up with a smogless engine.

—Share magazines and newspapers with neighbors or friends.

—Never litter a landscape. Pick up trash you see lying around.

—Don't destroy animal life. You may be contributing to the destruction of nature's balance.

—Start a drive to pick up all aluminum cans.

—Start saving old newspapers to be bundled and taken to collection places. You'll find them in shopping centers.

—Have broken items repaired for continued use instead of replacing them with new ones.

—Walk, take public transportation or ride a bicycle rather than drive short distances. Form a car-pool to work. Turn your motor off while waiting for a friend.

—Don't leave the water running when not in use.

—Pull weeds rather than using a weed killer.

—Bundle and sell old magazines. (Check Yellow Pages.)

—Be a spy against air pollution and report any open fires or offensive smoke (a company, street corner, license of vehicle, address). Telephone 239-7711, extension 631.

—Don't use hard pesticides in your yard. Try spraying with garlic extract diluted with water, pick insects off by hand, or send for ladybird beetles and praying mantis eggs to release in your yard for biological control.

Become educated about the problems of the environment.

—Scan daily newspapers and magazines for articles on current environmental issues.

—Subscribe to environmental magazines and publications.

—Read the following books: **The Population Bomb, The Environmental Handbook, Ecotactics, Moment in the Sun, Our Plundered Planet,** and **The Frail Ocean.**

Communicate with your elected representatives and candidates.

This is the only way we can work within our system of government to achieve positive changes that may save our environment.

—Write them asking what their stand is on specific issues

1. air pollution
2. water pollution
3. getting and insuring open space
4. control of hard pesticides
5. population control
6. rapid, mass transit
7. conservation of natural resources
8. elimination of disposable bottles
9. recycling wastes
10. saving lagoons, estuaries and open shore areas for wildlife and recreation

—Support only those candidates who are **committed** to improving and saving our environment. HELP SAVE THE EARTH — YOUR FUTURE DEPENDS ON IT.